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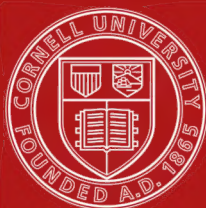
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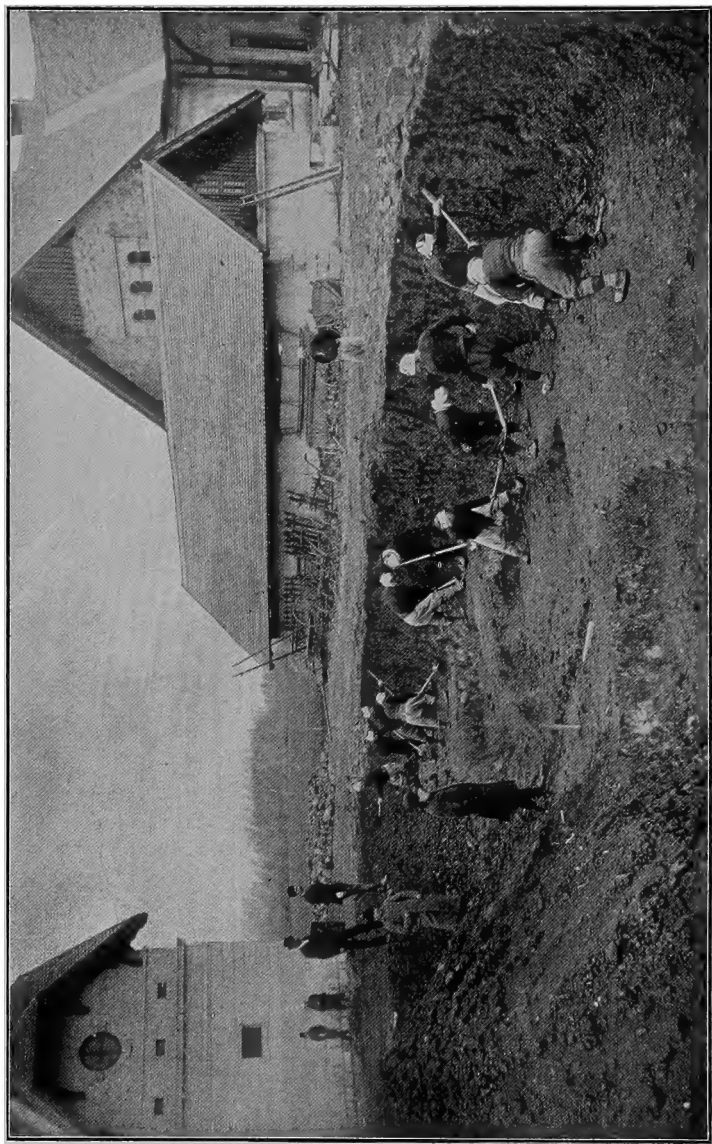


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RAMBLES AND STUDIES
IN
BOSNIA-HERZEGOVINA AND DALMATIA



FRONTISPIECE.

EXCAVATIONS AT BUTMIR.

RAMBLES AND STUDIES
IN
BOSNIA-HERZEGOVINA AND DALMATIA

WITH
AN ACCOUNT OF THE PROCEEDINGS OF THE CONGRESS
OF ARCHÆOLOGISTS AND ANTHROPOLOGISTS
HELD AT SARAJEVO, AUGUST 1894

BY
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SECOND EDITION
REVISED AND GREATLY ENLARGED

WILLIAM BLACKWOOD AND SONS
EDINBURGH AND LONDON
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P R E F A C E.

THE Government of Bosnia-Herzegovina having departed from their original intention of publishing a bilingual report of the proceedings of the Special Congress of archæologists and anthropologists, held at Sarajevo in 1894 (see Preface to the First Edition), this work has the distinction of being the only record, in book form, of the problems submitted to, and discussed by, that learned body.

The discussions on the early Iron Age cemeteries of Glasinac and Jezerine are here supplemented by a new chapter on "The Civilisations of Hallstatt and La Tène"—entailing the addition of eight Plates of illustrations and some figures in the text. From the frequency with which the generic expressions "Hallstatt" and "La Tène" are now used in the archæological literature of Europe, it becomes essential to have some definite notions as to the class of objects they represent. Unfortunately there is no work in the

English language which supplies such information. This desideratum came forcibly under my notice while engaged in writing 'Prehistoric Scotland,' recently published—for it is a remarkable fact that a knowledge of these two great landmarks of early European civilisation is as much a *sine quâ non* for British archæology as it is for that of the Balkan peninsula. But the prescribed limits of the Scottish volume precluded me from then entering upon the details of that important phase of the subject. Here, however, there is no such restraint, and so I take the opportunity of removing, in some small measure, a serious hindrance in the path of those who may be desirous of tracing "Late Celtic" remains found within the British Isles to their Continental prototypes.

The second volume on the Neolithic station of Butmir is now published, and in it there are many additional relics described and illustrated, including some beautiful specimens of the spiral ornamentation on pottery like those on Plate XIV. As a whole, however, they present the same general characters as those published in the first volume, and consequently do not interfere with the deductions already formulated in this work with respect to that remarkable settlement. I have therefore disposed of them in a few remarks at the end of chapter iv.

Another slight addition to the text (pp. 388-391)

is made by way of replying to a criticism in the 'Athenæum' calling in question the relevancy of some of my remarks on the reputed tenets of the Bogomiles. With the exception of a few minor corrections in the text, the rest of the book remains unchanged. The addition of an index—the omission of which in the first edition was strongly animadverted upon by many reviewers—will, it is hoped, considerably enhance the value of the book to those who may find it a convenient introduction to the study of the early Iron Age in Europe.

ROBERT MUNRO.

EDINBURGH, 48 MANOR PLACE,
March 19, 1900.

PREFACE TO THE FIRST EDITION.

ON an early day of this year I received a communication from the Government of Bosnia-Herzegovina, dated December 31st, 1894, intimating their intention to publish an illustrated *brochure*, in German and in French, which would give a detailed account of the proceedings of the Congress of anthropologists and archæologists held at Sarajevo in August of that year. Their object, they stated, was by this means to popularise the scientific results then arrived at. They asked if I had any corrections to make on the report of the proceedings of the Congress which appeared in several numbers of the 'Bosnische Post,' as this was to be the basis of the intended publication; or any suggestions to offer in regard to the selection of illustrations. They further stated that any supplementary observations the members might wish to make would be incorporated as an appendix, so as to make the work as complete as possible.

In replying to this communication I expressed my

hearty approval of the proposed publication, with the exception of the appendix, in regard to which I pointed out that any additional matter thus included would only bring together a mass of controversial matter representing merely the opinions of the individual writers. . . .

I then informed them of my wish to write a popular sketch of my visit to Bosnia—not, however, restricting myself to the special object for which the members were called together, but giving glimpses of the scenery and of the social life of the people—provided they gave me permission to copy some of the illustrations published in their scientific reports ('Wissenschaftliche Mittheilungen aus Bosnien und der Hercegovina').

To this the Government replied that they hailed with satisfaction (*mit dem grossten Beifall begrüßen*) my intention of giving to English readers an account of their country and its archæological treasures; and for this purpose they not only granted the permission asked for, but offered to further the work by placing at my disposal any *clichés*, photographs, plans, &c., in their possession, which I might deem necessary.

But, besides the scenic beauties and remarkably interesting archæological remains in Bosnia-Herzegovina, I came across other discoveries at Salona, Knin, &c., equally interesting and novel; and so I determined to include a notice of them in my proposed book on

Bosnia. I therefore wrote to Professor Bulić, Director of the Museum at Spalato, informing him of my project, and asking a similar favour with regard to the proceedings of the "Primo Congresso degli Archeologi Cristiani," of which Congress I had already become a member. His reply was everything that kindness could dictate, and along with it came a packet of photographs, maps, plans, &c., which covered the entire field of my operations.

Thus were begun the labours which have come to an end by the appearance of the volume now offered to the public. Those who look beneath the surface will find that I am but a secondary agent in its production, its real authors being the experts of the *Landes-museum* at Sarajevo—Hörmann, Radimsky, Truhelka, and Fiala,—and the Director of the Spalato Museum, Dr Bulić. On the writings of all these learned gentlemen I have made large draughts, especially on those of the late and much lamented WENZEL RADIMSKY, a notice of whose untimely death has reached me while these very words are being written.

But although my share of the work lies outside original research, my labours cannot be regarded as those of a mere compiler. Not only have I taken upon myself the responsibility of selecting the materials, but also of clothing them in an English garb. Over and above these labours comes the question of archæological capacity to interpret the actual phe-

nomena brought under review. This, however, is a matter for others to decide; but, in mitigation of any adverse criticism on this point, I would urge the plea that it is better to have an imperfect account than no account at all. Independence of thought is not in this book buried under the burden of authorities, and should the author's individuality occasionally crop up he trusts it is not in an obtrusive way.

The *raison d'être* of the book is to give an abbreviated account of the attractions—scenic, social, and scientific—of a portion of the Balkan peninsula, which, till lately, was almost inaccessible and unknown to the people of Western Europe. On the success or failure of my efforts to combine the popular and scientific elements, probably, hangs its fate. From the current opinion that archæology is a dry, uninteresting study, and incompatible with the gay and pleasurable side of life, I dissent *in toto*. I have not found it so; on the contrary, in its pursuit I have come across episodes, incidents, and phases of actual life unequalled, for genuine humour, by any of the concocted narratives of the most lively magazines.

In dealing with literary materials emanating from Slavish sources one encounters a difficulty which, though trivial, is somewhat embarrassing to publishers and readers—viz., the orthography of proper names. Hitherto English writers have endeavoured to indicate

the sounds of certain letters by substituting their phonetic equivalents in ordinary types. Thus Čaršija is written *Tsharshia*, Glasinac *Glasinatz*, &c., thereby increasing the confusion, already great enough, by suggesting the idea that there are various ways of spelling the same word. I have avoided this difficulty by retaining the Slavish letters with their special marks, as is now universally done in German literature. A glance at the following table will make the process at once clear and simple:—

c	is pronounced as	<i>tz</i>	Konjica = Konjitzä.
ć	"	" <i>ch</i> (as in church)	Metković = Metkovich.
č	"	" as <i>tsch</i>	Miljačka = Miljatschka.
s	"	" as <i>s</i> (in hiss)	Bosna = Bossna.
š	"	" as <i>sch</i>	Čaršija = Tscharschija.
z	"	" as <i>s</i>	Zenica = Senitza.
ž	"	" as <i>sh</i> or <i>zh</i>	Džamia = Dzhamia.

In addition to my obligations to the Government of Bosnia - Herzegovina and to Dr Bulić, I have to express my indebtedness to the Society of Antiquaries of Scotland for the use of the blocks for figures 110 and 111; to the International Sleeping-Car Co., London, for the loan of the blocks of eight plates from their Illustrated Guide-book to Bosnia and Herzegovina; and to my wife for reading the proofs.

ROBERT MUNRO.

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BOSNIA-HERZEGOVINA AND DALMATIA.



CHAPTER I.

TO AND AT SARAJEVO.

THE provinces of Bosnia and Herzegovina are situated in the mountainous regions of the north-west corner of the Balkan peninsula. The fact that they are separated by the backbone of the Dinaric Alps—the watershed of the Adriatic and the Pontus—furnishes an explanation of the marked contrast observed in their respective natural productions and scenery. To the north-east of this range lies Bosnia, whose deep glens, broken ridges, and beautifully wooded hills stretch away till they finally merge into the plain of the Save. The country is traversed from south to north by four main rivers—viz., the Una, the Vrbas, the Bosna, and the Drina, all tributaries of the Save. These long-winding waterways here and there expand into alluvial basins which yield good crops of maize; while on the de-

clivities are cultivated, often to a great height, wheat, barley, rye, oats, millet, and other cereals. Herzegovina, on the other hand, slopes towards the southwest in a succession of broad ridges of *Karst* (limestone), with intervening valleys generally running parallel with the coast. The last and lowest ridge almost disappears in the Adriatic, only the higher points being visible in the long line of islands which skirt its eastern shore. These rugged plateaux are utterly destitute of vegetation, and from the more commanding view-points they look like a tumultuous sea of bare, bleak, and desolate rocks. A remarkable feature of the rivers and streams of these regions is that, with few exceptions, they eventually lose themselves in underground passages (*ponors*); while others, in an equally mysterious manner, suddenly appear on the surface. But however long or short the course of a stream may be, it invariably gives rise to a most luxuriant vegetation—a veritable oasis in the desert. Another noteworthy feature of the country is that during late autumn and winter many of its confined valleys (*polje*) become extensive lakes or swamps. In early summer these accumulated surface-waters gradually disappear by means of evaporation and the underground passages, and as they retire their former slimy beds are made to yield, with little labour, an abundant crop of maize.

Of the rivers of Herzegovina the famous Narenta is the only one of magnitude which finds its way to the sea entirely above ground. Rising on the flanks of some of

the higher ridges of the Dinaric Alps, it at first takes a northward course, and then, after a sudden semi-circular sweep to the west round the Prenj group of mountains, flows due south through one of the grandest defiles in Europe. Beyond this the Narenta comes into more open ground and passes through some alluvial plains, where the olive, the fig, and the pomegranate find a congenial habitat side by side with fields of maize, rice, and tobacco. Although, as one approaches the sea, the higher mountains are left behind, the general configuration of the country is still lofty, and presents the same parched, sunburnt appearance as the interior.

The special geographical conditions which gave rise to the diversified flora and fauna of these provinces had also a considerable influence in modifying, from time to time, the racial characters and social life of their inhabitants. Open, on one side, to the fluctuating civilisations which successively flourished on the shores of the Mediterranean, and, on the other, easily accessible to the nomadic hordes from Asia and the north-eastern regions of Europe, it is probable that from the earliest times the Balkan peninsula was inhabited by a mixed population. The varied ethnological elements thus imported from all sides readily took root in Bosnia and Herzegovina, whose woods and mountain recesses afforded a safe retreat in times of persecution. Of the prehistoric inhabitants of the country little information has come down to us either through tradition or written records. To Herodotus and some of the classical authors

the western half of the Balkan peninsula was known under the name Illyricum. Although the territory thus designated was more restricted in Roman times, it still included the whole of Dalmatia, part of modern Croatia, Bosnia-Herzegovina, Montenegro, and part of Albania. With the downfall of the Roman Empire, the country became an easy prey to the advancing Slavs, who speedily established themselves as its dominant people. The various branches of these northern wanderers—Avars, Slavs, Serbs and Croats—who found a footing within the confines of Illyricum, by degrees became consolidated into independent groups, who were governed by princes called Bans or Waywodes. Almost at the first onset of the invaders the old Romans were driven to the islands and towns on the coast of the Adriatic, and even there, for a long time, were not safe from their fierce enemies. But at no time were the Slavs of Bosnia sufficiently powerful to occupy a commanding position among the social organisations which were developing around them, and so they became dependent first on Byzantium and then on Hungary.

Christianity was introduced among the Slavish races about the middle of the seventh century, and it was a couple of centuries later before the new doctrines superseded the paganism of the Narenta valley. But scarcely had this faith been established in the Balkan peninsula ere it gave birth to a mystic creed called Bogomilism, which seems to have taken an unusually strong hold on the minds of the people of Bosnia

and Herzegovina. This new creed was condemned as heresy by the Church, and consequently its public profession was followed by long-continued religious persecutions of unheard-of severity. Finally, owing to these and other internal dissensions, the two provinces fell into the hands of the Turks, and in 1463 they became incorporated with the Ottoman Empire. Henceforth Bosnia and Herzegovina vanished from the current of European civilisation, and for upwards of 400 years scarcely a ray of Western thought penetrated the intellectual gloom which settled over these beautiful lands. Repeated but fruitless insurrections only intensified the grinding spirit of Turkish rule. At last, in 1875, goaded by extortionate taxation, as well as by the fanatical persecutions of Mohammedans, the Christians once more made a determined effort to throw off the yoke of their oppressors. On the failure of the Turks to restore order, the provinces were invaded by the Austro-Hungarian army. A strenuous resistance offered by the supporters of Turkish supremacy was soon put down, and since then, in accordance with the provisions of the Berlin Treaty of 1878, Bosnia and Herzegovina have been governed under the administration of the Austro-Hungarian Empire.

In proceeding to give a short account of the present condition of Bosnia and Herzegovina, and of some of the scenes and incidents which attracted my attention during a recent visit to these singularly picturesque regions, I have to premise that my primary object was to take part in a special Congress of anthropologists and

archæologists, held at Sarajevo, the capital of Bosnia. Foreseeing from the comprehensive programme submitted to the members in advance that during the sitting of Congress there would be little time for anything but archæology, my wife and I determined to visit the country before the meeting began. Hence the materials of the following sketches are gathered, partly from wanderings made on our own hook, and partly from archæological excursions specially arranged by the authorities at Sarajevo, which afforded glimpses of scenery and social life of exceptional interest. Before leaving, I received an official letter (*Offene Ordre*) from his Excellency Herr von Kállay, Finance Minister of the Austro-Hungarian Empire, and head of the administration of Bosnia-Herzegovina, commanding all public authorities to protect and assist us during our travels in the country.

Armed with these credentials and the above-mentioned programme, we started on our journey in high spirits, and, on the afternoon of the 3d of August, left Buda-Pest on the final railway journey which was to bring us to Sarajevo. The Belgrade express conveyed us as far as Szabadka, a prosperous town prettily situated in the middle of the richest corn district in Hungary. Its appearance is more emphasised on my memory by the information, vouchsafed by a fellow-traveller, that it is the great centre for the export of eggs to the English market. On alighting here another train was in readiness to take us to Bosna-Brod, the first station of the Bosnian railway, as well as being the

terminus of the Hungarian State railway. The discomfort of this monotonous journey through the great plain of Hungary, with its hot sun, parched fields, and dusty atmosphere, is almost indescribable. The drought was so great that villages were taking fire, as if from spontaneous combustion, and before the close of the day we passed two blazing hamlets. The only event of rousing interest was the passage of the Danube by means of a chain ferry, which transported the entire train without any more disturbance to the passengers than if it had been shunted into a siding.

Bosna-Brod is situated on the Bosnian side of the Save, immediately after crossing the fine railway bridge which here, in three arches, spans the river. We arrived at the station about midnight, where—the *Bosna-bahn* being a narrow-gauge line—an hour was allowed for transference from the one system to the other. A restaurant adjacent to the railway station was largely patronised by beer- and coffee-drinkers, but its commissariat resources at such an unseasonable hour were very limited, and so our long-desired *Abendessen* had to be restricted to the plainest fare. As soon as I took tickets for Sarajevo an official in uniform, who was standing near, demanded my passport. I at once handed him my *Offene Ordre*, and upon scanning its contents he very politely touched his cap and returned the document. The carriage into which we stepped was clean and comfortable, and having secured two adjacent corners, we soon settled down for such repose as the circumstances would permit of. Daylight was anxiously

awaited, and the first appearance of dawn was sufficient to dispel my slumbers; but ere I could distinguish the salient features of the landscape, dimly defined through the dew-bedecked window, the train pulled up at a station. It was Doboj, from which a branch line, some forty miles in length, runs up the valley of the Spreča to the salt and coal mines in the vicinity of Dolnja Tuzla. A halt of fifteen minutes being announced, we had time to partake of hot coffee and bread supplied from an hotel adjoining, which the proprietor had laid out for the convenience of the passengers. Doboj derives special importance from its strategic position in commanding the entrance to the valley of the Spreča and of the Bosna. On an isolated hill in the middle of the town are the imposing ruins of a castle, from which there is an extensive view. In the vicinity of Usora there is a large saw-mill—"Etablissement der Bosnischen Eichen-Exploitation"—connected with Doboj by a small private railway; and lately there has been erected in the same place a sugar factory, fitted up with the newest machinery. From a recently published guide-book, fortunately secured in Vienna, I learned that during the few hours of darkness we had travelled fifty-one miles, and crossed the higher ground between the valleys of the Ukrina and the Bosna, in the latter of which our route henceforth lay.

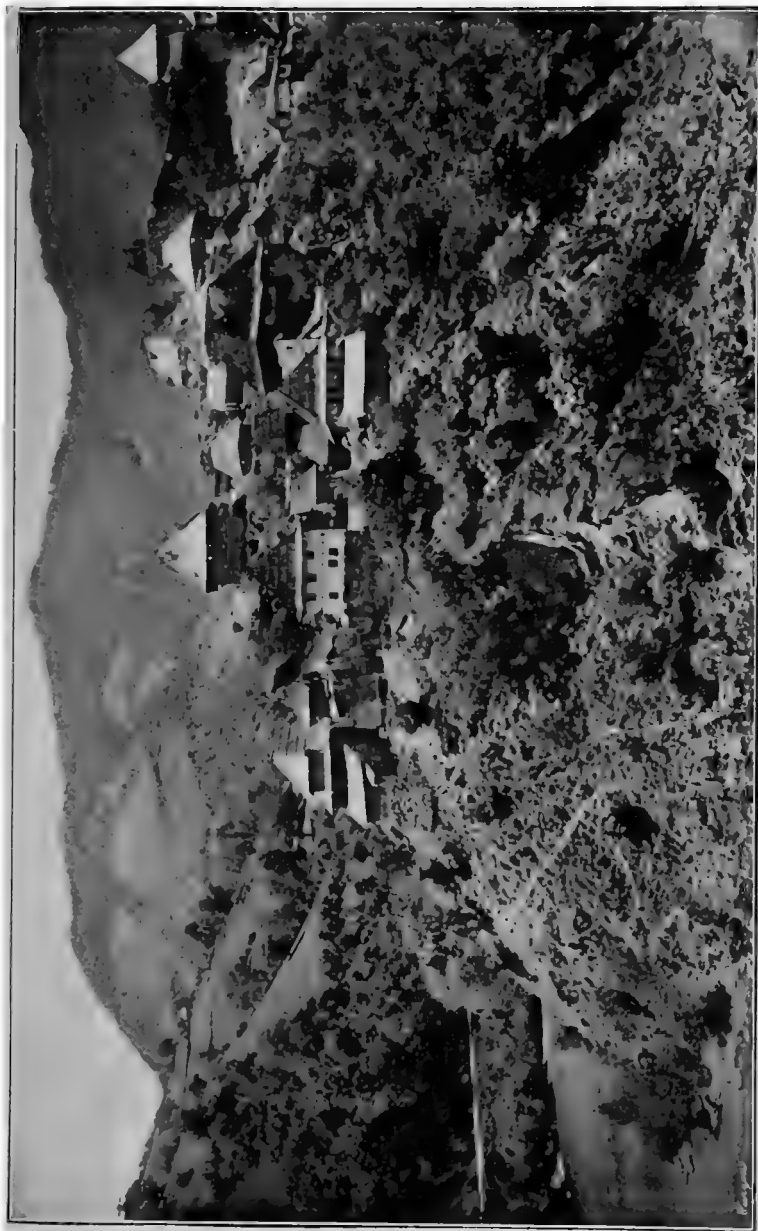
On resuming the journey, rosy tints, heralding the approach of the rising sun, already lit up a landscape replete with everything that could charm the imagination. Just at hand the clear water of the Bosna rushed

along its leafy banks, now in silent pool, now in foaming stream; and between it and the forest-clad mountains of the background, the eye danced over a picturesque profusion of rocks, groves, fields, and homesteads. Half an hour after leaving Doboj we entered the romantic defile of Kosna, where railway, road, and river become huddled together into the narrowest dimensions. The railway follows closely the windings of the river, without a single tunnel to shorten the tortuous way, and the train wheeled round its sharp curves with wonderful facility. Soon the morning sun shot its fiery rays across the compartment, now through one window, now through the other, in such quick succession that it was impossible to say for two consecutive minutes in what direction we were travelling. Before leaving the defile we had a glimpse of the lofty Sahin-Kamen—i.e., the Falcon-rock, a name which seems to confirm the tradition that high up in the face of this precipitous rock the “noble bird” had once its home. As we advanced, the ever-changing scenery kept us on the *qui vive*. Here a corn-grinding mill, poised on rickety piles in one of the frequent-recurring rapids of the Bosna; there a single-tree canoe, with no greater pretensions to skilled workmanship than if it had done duty at the dawn of civilisation. Conspicuous landmarks ever and anon caught the eye: herds of cattle, with a sprinkling of sheep and goats, browsing among the brackens and shrubs which skirted the primeval forests; straggling villages, with their quaint-looking houses interspersed among gardens, or clinging to rocks

like so many swallows' nests; fantastic rocks here and there protruding their weathered tops above bush and scar—so fantastic in one place that they go under the name of the “Corkscrews”—recalling some of the peculiar rock formations of Saxon Switzerland. Harvest operations were in full swing. Tall stooks of corn, formed by pinning the sheaves on poles, gave the harvest-field quite a different appearance from what we are accustomed to see at home. It was with some astonishment we noticed the corn being thrashed by the tread of a couple of ponies trotting round a pole, beside which the corn-sheaves had been thickly strewn.

Many of the towns and villages are splendid specimens of the picturesque, as, for example, Maglai and Vranduk (Plate I.), both of which possess conspicuous ruins of medieval castles. At Zenica the valley expands into a fertile plain, and the lignite coal-fields in the vicinity are now being vigorously worked. Also, in the town are some paper-mills and the central prison of the country fitted with cells on the most approved system.

As we emerged from the valley of the Bosna and approached the capital, we had on our right the plain of Ilidže, with the dark Igman conspicuous in the semicircular background of beautifully wooded hills; and in front, the conical peak of Trebević, which, shooting up from a bulky base to the height of 5340 feet, dominates the entire landscape. In a small valley on the north side of this mountain, an offshoot from the plain of Ilidže, lies the famous Bosna-Saraï, the modern



VRANDUK.

town of Sarajevo, at which we arrived shortly before noon, after a journey of some twenty hours.

When leaving the platform I was again asked to show my passport, and again Herr von Kállay's letter did efficient service. The station is some distance from the town, the object of this being to allow room for extension westwards—the only direction in which it is practicable. At the "Hotel Europa" we found that no rooms were vacant, and the best the landlord could do was to receive us temporarily on the chance of some one leaving in the course of the afternoon. This hotel is a large corner building situated in the main thoroughfare, near the centre of the town. The entrance is in a side street, and leads right through the building to an open court beyond. The ground floor is occupied by a large café and billiard-rooms facing the main street, while the restaurant and kitchens are on the further side of the entrance. In summer the court behind is also used as a dining-room, and, when prettily arranged, as it then was, with large flowering exotics, forms a most inviting place for the *Mittagsessen*. Before we had finished dinner the landlord came smilingly to announce that he had already secured for us *ein sehr schönes Zimmer*. It was, indeed, an accurate description, and the room turned out to be as comfortable as it was elegantly furnished.

In the cool of the evening we sauntered out to see what our novel surroundings were like. In front of the café a number of gaily dressed people—principally Europeans—were being served with coffee or other light

refreshments at small tables. Here, shaded from above by an awning and partially screened from the gaze of the passing crowds, they enjoyed the comforts and pleasures of fashionable European life. German literature was in abundance, and I saw one or two Italian and French newspapers, and of course some in the Serbo-Croatian language; but no English journal, not even the 'Times,' which is so largely patronised throughout Europe. On the opposite side of the street was a well-stocked book-shop with a large collection of Bosnian photographs. Turning eastwards along the Franz Josephstrasse we arrived in a few minutes at the native part of the town, where all traces of Western civilisation suddenly vanish. On the left was a low vaulted arch in an antiquated-looking wall, which led to a narrow gallery with niches on each side where squat salesmen expose their multifarious wares. This was the bazaar proper (*Bezestan*), which, though originally built for the exclusive use of Mohammedans, is now largely occupied by Spanish Jews. A great portion of the stock-in-trade of these vendors, though Oriental in appearance, is of European make, and expressly manufactured for this market. Among the goods might be seen highly-coloured silks and cottons, gold and silver embroidered stuffs, sham jewellery, gaudy slippers, ornamental pipes, &c. Also home-made metal-work, carpets, and other products of Bosnian industries. A little farther on is the Čaršija, the true city and business place of the Mohammedan world of Sarajevo (Plate II.). It consists of some fifty narrow streets running at right angles to each other.

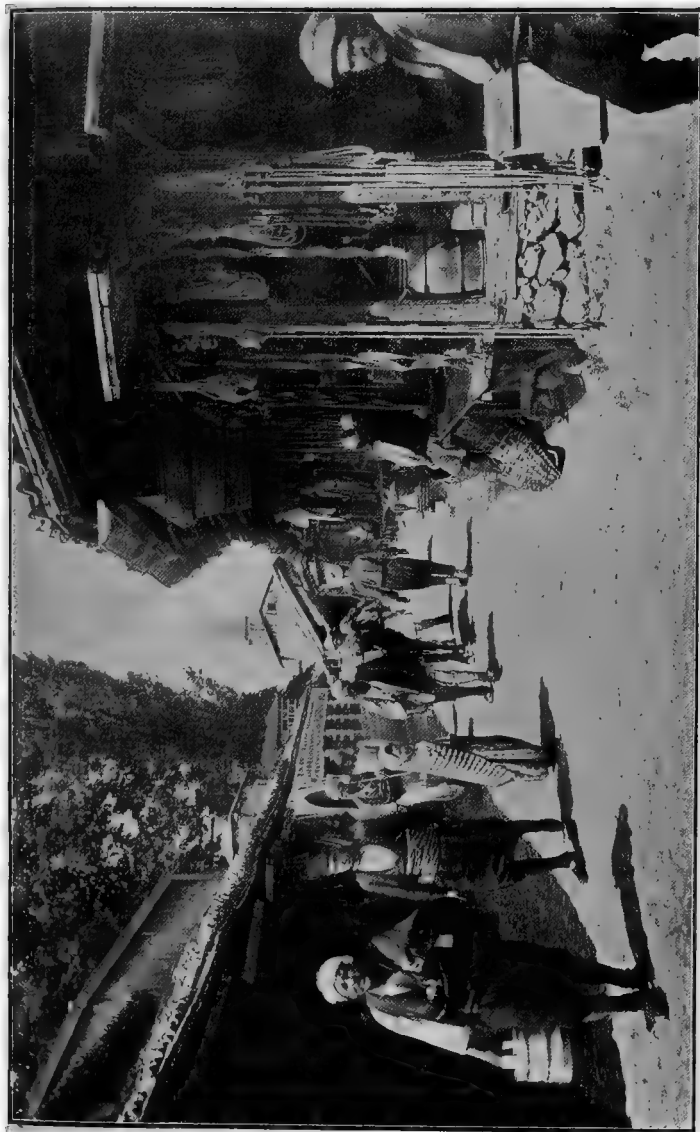


PLATE II.

A STREET IN THE ČARŠIJA, SARAJEVO.

Here, in open wooden booths, native goods may be seen in the act of being manufactured. Indifferent to the gaze of onlookers, the busy artisans ply their work from morning till sunset, when they retire to their villas and gardens in the suburbs. The different trades are governed by guilds, as was formerly the case throughout Europe, and each guild has its patron saint and the usual long list of officials. Most of these trades have some special locality where the workers congregate, and whole streets are almost exclusively occupied by their workshops. The stranger, if he is not already conversant with oriental ways, is apt to linger long watching the execution of the more delicate processes, such as the inlaying of silver wire in tasteful designs on iron or wood. Towards the east end of the Čaršija there is a Turkish reading-hall (*Kiraet-Han*), built in the oriental style, the most common place of resort for the better-class Mohammedans, who are often to be found there lounging on the divans serenely smoking chibouks or cigarettes. They are pleased to see strangers, whom they entertain to coffee and the finest tobacco.

It is, however, in the provision market that the most lively scenes take place. Here, during the forenoons, exposed in stalls along the streets, may be seen poultry, butchers' meat, fish, vegetables, fruit, &c. Bakers, pastry-cooks, and vendors of sweets of unknown composition, have then a busy time of it, now watching their pans, now bawling for the patronage of the passers-by.

Nor are the ethnological elements and varied costumes

displayed by the to-and-fro crowds less novel. To distinguish between the representatives of the different races and religions requires some local experience and historical knowledge. The confusion of racial characters, so far as these may be indicated by dress and general appearance, is increased by the fact that most of the present-day Mohammedans are Slavs by blood. Formerly Christians, of the sect known as Bogomiles, they ultimately adopted Mohammedanism in self-defence in preference to Roman Catholicism. But whatever be the race or creed of the modern Bosniac,—Slav, Semite, or Turk; Christian, Jew, or Moslem,—he still lives, moves, and has his being in the traditional world of his forefathers. Hence, as might be expected, the costumes seen in Sarajevo are somewhat bewildering. Of the men, some wear the fez or turban, along with a tight jacket, loose knickerbockers, stockings, and pointed slippers. Others have costumes which appear to have borrowed their individual elements from mixed sources. Almost every man wears round his waist a sash or leathern girdle, in the folds of which he carries such necessary objects as tobacco, knife, &c. The Mayor of Sarajevo wears European dress and a fez. Women also adhere to their traditional costumes. Veiled or unveiled, they strut along on wooden slippers and the divided skirt *à la Turque*. Mussulman women seldom appear on the streets; but a Catholic or a Jewish girl may be seen wearing a fez, or a small round cap ornamented with coins, by way of setting off her coquettish face. Serbian women of the peasant order wear loose gar-

ments made of a coarse white material, and a head-dress somewhat resembling that worn by the Neapolitan women (Fig. 1).



Fig. 1.—SERBIAN PEASANTS, BOSNIA.

Returning in good time from our stroll in the Čaršija, we secured a convenient table for the evening meal in the restaurant. Here the military, as well as the civilian, element was well represented, and as the

officers came in we watched the punctilious etiquette, with which they greeted each other according to their respective ranks. By-and-by two young officers entered looking somewhat perplexed, noticing no one and unnoticed by anybody. They were Austrian civilians, ordered to Sarajevo for a month's drill, but as ignorant of the country as ourselves. Being our fellow-travellers from Bosna-Brod, we had already made their acquaintance. On seeing us they at once came forward and asked permission to sit at our table. One of them spoke good English, and both were extremely pleasant and full of fun, and our table by no means failed to supply its quota to the babel of mirth and laughter which resounded through the supper-room.

We had our first general view of Sarajevo from that magnificent view-point the castle rock, which, rising some 500 feet above the bed of the river, commands an extensive survey of the town and its surrounding hills (Plate III.). Starting from the hotel by the Franz Josephstrasse, we entered the gorge of the Miljačka by a road which winds round the base of the precipitous cliff on its right bank, and, after a short walk, ascended, by a branch road on the left, to the front wall of the Citadel, where, suddenly, we came upon a panorama of surpassing grandeur. I have seen many cities renowned for their beauty—Damascus and Jerusalem, Cairo and Constantinople, the Venice of the North and the Venice of the South—but none of them excited within me such admiration as Sarajevo. Thickly planted in this undulating sea of quaint-looking houses, so diversified in form and

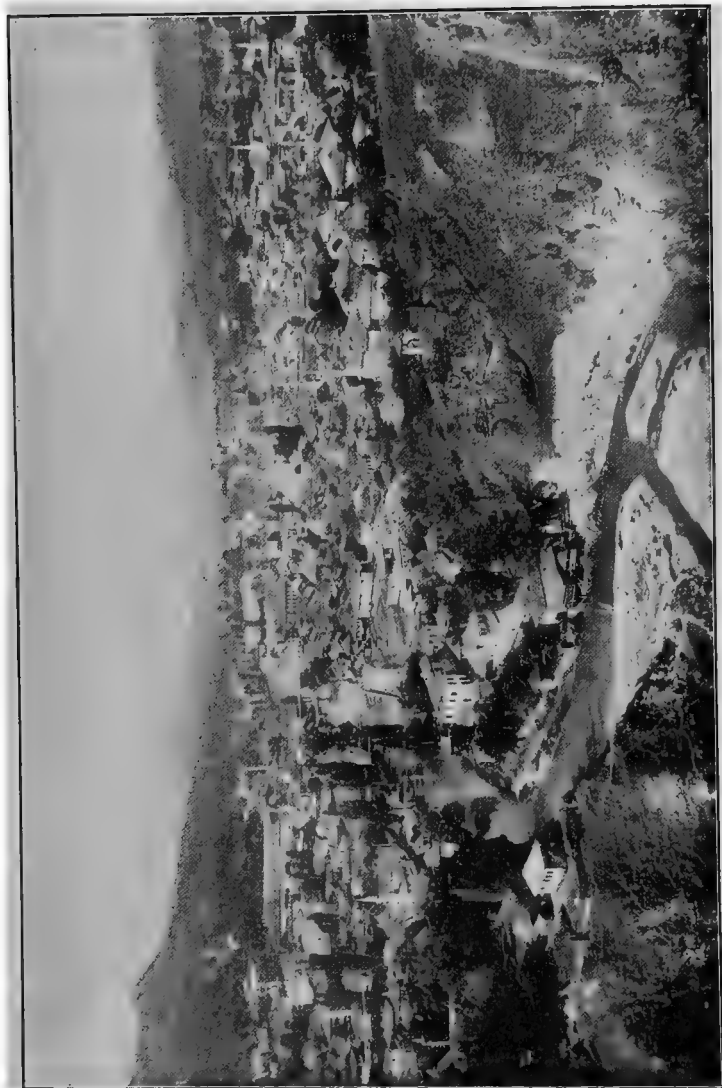


PLATE III.

SARAJEVO FROM THE CASTLE.

material, were mosques and minarets, churches and spires, offices, barracks, and sepulchres. Indeed, wherever the eye wandered, it was a perfect study in black and white. On the outskirts, to right and left, were the suburban villas and gardens, some nestling in secluded hollows, others clinging to the higher slopes among rocks and woods. The Miljačka having emerged from its rocky bed, appeared now as a silvery streak dividing the town into two nearly equal portions, but connected by nine bridges placed at convenient distances. Immediately below us was the new *Rathhaus*, a prominent but half-finished building of splendid dimensions; and a little to the right, on a conspicuous eminence, stood the handsome *Scheriatschule*. Of the hundred mosques said to be in Sarajevo, we could count only about forty tall minarets—sufficient, however, to give the scene an unmistakably oriental aspect. The only distant view was towards the west, over the town and plain of Ilidže, which extended as far as the outlying ridges of the Dinaric Alps. In all other directions the valley is closed in by the surrounding hills, with the exception of the Miljačka defile, which winds far into the mountains; but being narrow and tortuous, it becomes almost lost in the general landscape. The Citadel or Castle, now occupied by a large garrison of Imperial troops, is an irregularly shaped enclosure containing a heterogeneous mass of buildings, walls, bastions, forts, and barracks, of many ages and of many architectural styles.

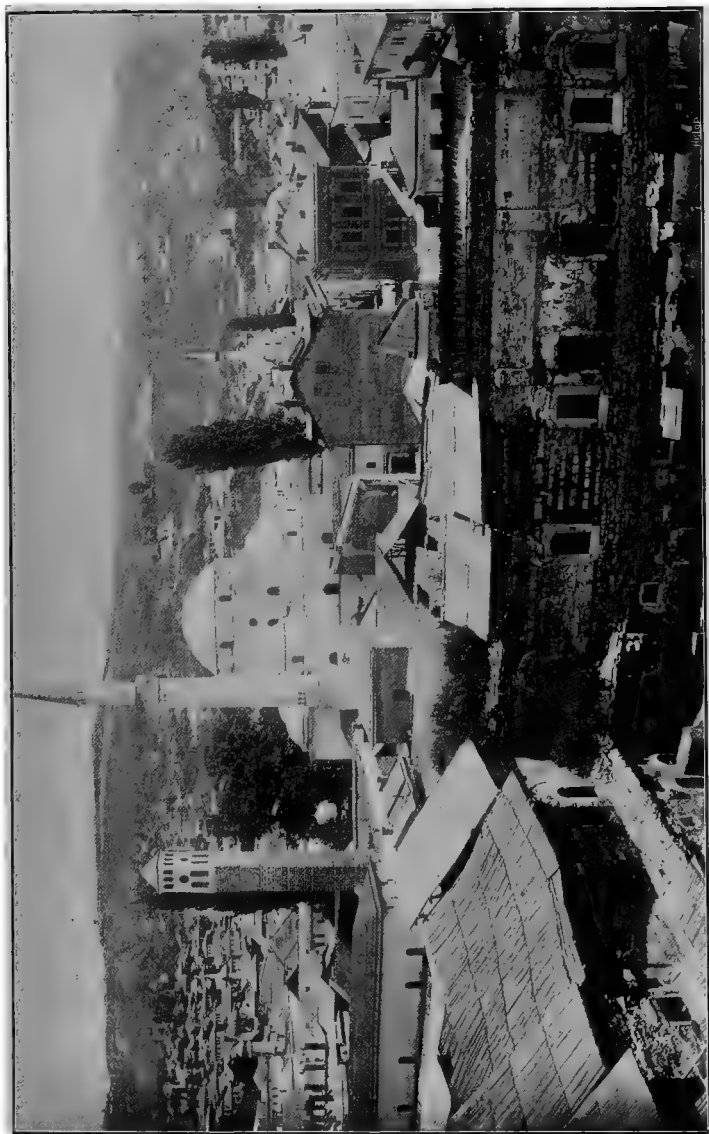
By a footpath on the right we descended the grassy

slope between us and the town, and, threading our way through the crooked streets, soon reached the *Scheriat-schule*, or college for teaching Mohammedan law. This is a large rectangular building in the oriental style, having its walls faced with horizontal bands of black



Fig. 2.—WELL IN THE COURT OF BEGOVA-DŽAMIA, SARAJEVO.

and white stone. It is approached by a broad stone stair, with flower parterres on each side, and the entrance, surmounted by a lofty arch, is in the middle of the façade. As we reached the front of the edifice the janitor, who was smoking a cigarette at the gate,



BEGOVA-DŽAMIA, SARAJEVO.

at once stepped forward and invited us to enter. We gladly followed him, first through an open court containing a central fountain and surrounded by a colonnade; then through a series of apartments—lecture-rooms, dormitories, refectory, bath-rooms, library, council-room, chapel, &c.—all constructed on the most approved sanitary principles.

Coming back through the Čaršija, we passed by the Begova-Džamia (Plate IV.), the largest and finest mosque in Europe, next to those of Constantinople and Selim's mosque in Adrianople. In its court stands a venerable Linden-tree, under the shade of which there is a handsome stone fountain with twelve basins, destined for the ablutions of the faithful (Fig. 2).

After a few days I called for the Director of the *Bosnisch-Herzegovinisches Landesmuseum*, Counsellor Constantin Hörmann, to whom was intrusted the duty of making all necessary arrangements for the ensuing Congress, and through him I was introduced to the other officials in the institution.

The antiquities and scientific objects to be seen in this truly national museum are located in suites of rooms occupying one corner of a larger building called *Beamten - Pensionsfonds*. A portion of the ground floor and the first storey are exclusively occupied with the natural science collections, which are thus distributed:—

- (1) Geological and mineralogical collection (5 rooms).
- (2) Botanical specimens, including several herbariums by eminent botanists.

(3) Zoological collection, with a laboratory for the preparation of specimens (7 rooms).

(4) Entomological collection (4 rooms).

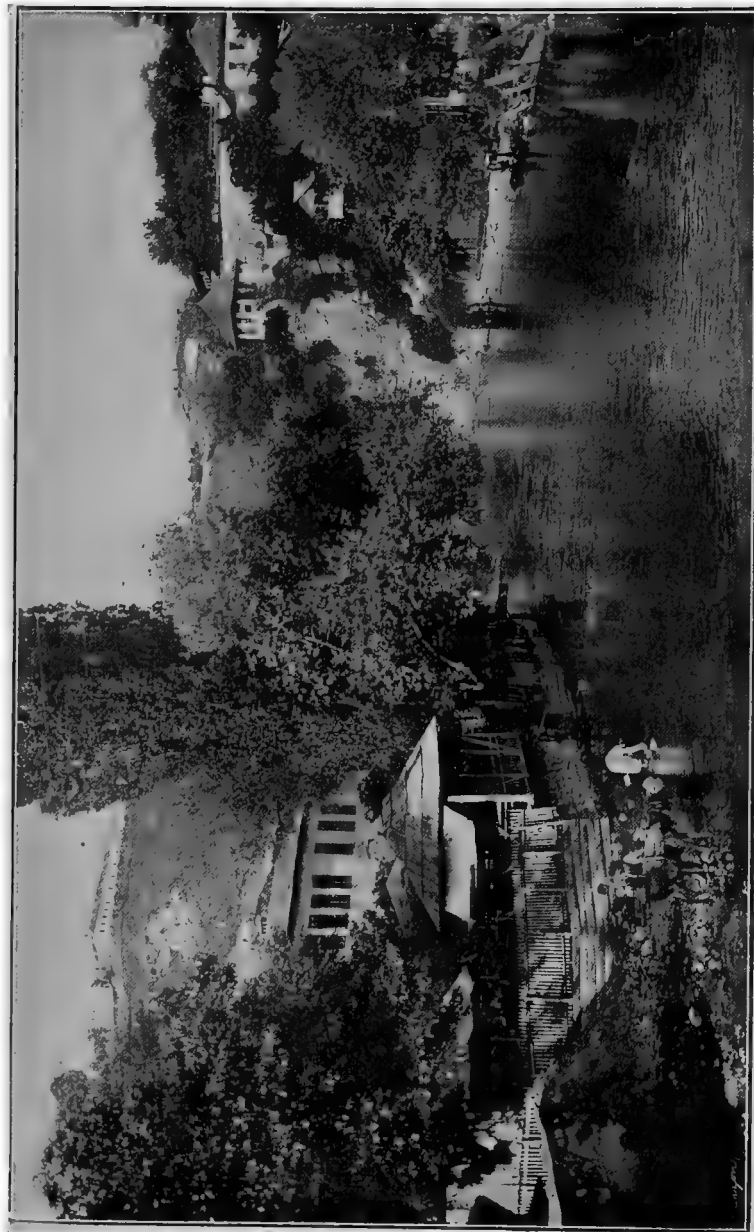
On the second floor are the well-arranged culture-historical collections, illustrating the various phases of civilisation through which the country has passed from prehistoric times down to almost the present day. Of the dozen rooms or so set apart for this purpose, two are devoted to prehistoric objects, chiefly of the Stone and Early Iron ages. Other three rooms contain Roman, early Christian, and medieval antiquities, including inscribed and decorative stones, or casts of them, various kinds of armour, &c. In another room are displayed a collection of ancient coins numbering nearly 6000 specimens, a case of gems, impressions of seals, and some early documents. But the most attractive department is the ethnographical. Here, distributed over six rooms, are groups of life-size costume-figures, showing the styles of dress and ornaments formerly worn in the country. The walls and ceilings of the rooms are so constructed as to illustrate the characteristic woodwork of some of the earlier periods. Besides these figures there are numerous isolated articles of furniture, dress, and personal ornaments. Altogether this department gives a most instructive pictorial representation of the customs and habits prevalent among a people so singularly divided in rank, race, and religion.

Mr Radimsky, Chief Inspector of Mines in Bosnia and Herzegovina, and a most enthusiastic investigator of the antiquities of his country, showed me two large

collections of prehistoric objects which were not yet exhibited in the public part of the Museum. One of them was from the neolithic station at Butmir, of which I will have much to say in future chapters of this work, as it falls to be one of the most important discoveries on which the opinion of Congress was asked. The other greatly interested me, as it was supposed to be the *debris* of an ancient pile-structure situated in what was formerly part of the bed of the river Una, near Bihać. From the numerous photographs, plans, and sections so carefully prepared by Radimsky, there can be little doubt that he is right in regarding this habitation as a veritable pile-structure. To this opinion the character of the remains lends support. Among the food-refuse and relics collected were the broken bones of a variety of domestic and wild animals; some cereals, seeds, and fruits; fragments of pottery, spindle-whorls, and a number of stone moulds for casting bronze celts; various implements, weapons, and ornaments of metal,—all of which prove that the inhabitants had prosecuted the usual arts and industries of pre- and proto-historic times. Among the relics are a few characteristic specimens of La Tène culture, as well as objects of Roman and medieval times. The area investigated was thickly studded with the stumps of piles, and its extent was too great (some 30 yards long by 20 broad) to give countenance to the suggestion that it formed the basis of some special building such as the corn-grinding mills, still constructed on piles, and common along the streams of the country.

Travellers who visit Sarajevo having a little time to spare, will find, in an examination of the older ecclesiastical buildings and traditions of the different religious denominations, many objects and scenes of curiosity and interest. A little to the west of the Scheriat College is the *Logavinastrasse*, which leads up to the *Sinan Tekke*, where on Thursday evenings the peculiar religious ceremonies of the Howling and Dancing Dervishes may be witnessed. Having seen such exhibitions in other parts of the Mohammedan world, and having, during my stay at Sarajevo, more urgent duties to attend to, I am unable to give an account of this performance as an eyewitness. Here, however, is Mr Asboth's description of it:—

The most frequent meetings of the Dervishes also fall during the time of Ramazan: one Friday we witnessed the ceremonies of the Howling Dervishes. Towards ten o'clock in the evening we started for Sinan-Thekia, which is situated tolerably high up upon the hillside on the right bank of the Miliaska. This Thekia—Dervish monastery—takes its name from its founder, the celebrated Bosnian Dervish Sheik, who was held in great respect, and was even credited with being a sorcerer. We found a quiet, deserted place, a building in ruins. We were cautioned to mount the wooden stairs with care, and to take our places quietly in the broad wooden gallery; not only because the ceremonies had already commenced, but also that the rotten timbers might not give way. The broad, dome-covered hall was only dismally lighted by a few tapers. Opposite to us there stood, in front of the Kibla (the niche for prayer), which faced towards Mecca, a haggard old man, with a white beard and gloomy visage, in a pale, faded caftan, and the green turban of the sheiks. Before him stood a circle of about twenty men in the dress usually worn by the Mohammedan middle classes



VIEW IN SARAJEVO.

in Sarajevo ; respectable water-carriers, merchants, and artisans. For just as Islam knows no ecclesiastical hierarchy, so the dervishes form no particular order, as our monks do, for example, even though they, like them, reply upon mysticism and asceticism. . . . The "Dzikh" commenced. The sheik sung with a penetrating, tremulous voice the same declaration of faith which the Muezzin proclaims from the top of the minaret : "*Allah akbar !*" he called three times (God is the greatest !); and twice : "*Ashhadu anna : la illah ill Allah, Ashhadu anna,—Muhammed rasulu 'Ulah*" (I bear witness that there is no God but God ; I bear witness that Muhammed is God's messenger).

In the meantime the dervishes began to sway their heads slowly and shortly, whilst they accompanied every bend with a deep-drawn breath. "*Hajja allah salah !*" (Come to prayer !), the old man called out twice. "*Hajja allah fallah !*" (Come to the worship of God !) "*Allahu akbar—la illah ill Allah !*"

By the time the last sentences had been repeated, the dervishes had had time to gradually attain to a quicker motion, deeper, more rapidly bent their heads, which by that time were followed by the whole upper part of the body, and the breathing grew ever louder and louder, and the movements ever more violent, and then the breathing into panting. Both occurred at the same moment, and by all together in unison.

The suspended arms already touched the ground, the panting grew to a loud "Hu," equivalent to "He," God. The ecstasy had begun. Some of the fezzes and turbans flew off, and the long hair or the tuft left on the shaven scalp was thrown backwards and forwards over their heads. In the unison of "Hu" in the chorus, which had now grown to a roar, was blended the ecstatic "Allahu" of one or the other enthusiast. The perspiration was streaming down their faces, many were foaming at the mouth, one was as red as a brick, another as white as a corpse. Then a lad bounded into the centre of the half-circle and began to twist himself round with outstretched arms, like a spindle, ever quicker, and yet more quickly. The half-circle interrupted its genuflexions ; for a moment they recovered their breath, and then turned first the head, then the whole of the

upper part of the body, in jerks, to the left and right alternately. They performed this movement with increasing rapidity, led by wild cries of "Hu, Hu!" whilst the youth, with gaze directed heavenwards, and with outstretched arms, turned unceasingly. He grew paler and paler, and was soon as pale as death. His eyes closed. He had already been spinning for half an hour, and now at the rate of sixty evolutions per minute. Each moment one thought he must collapse. Again rose the monotonous song of the old man, the roar ceased simultaneously with the movement, some of the dervishes fell to the ground—the "Dzikir" was over.¹

On the left bank of the Miljačka, a little higher up than the Careva-Džamija, amidst rich gardens and shrubbery, is the Konak, the official residence of the military Governor of Bosnia-Herzegovina. It was built in 1858 for the Valis of Bosnia, and is therefore an interesting relic of later Turkish times.

A little farther west, near the great infantry *Kaserne*, also taking origin in Turkish times, there is a mosque in front of which may be seen the *Tekija* of the seven beheaded brethren (Fig. 3). The tradition is that, some 200 years ago, seven dervishes were beheaded by a pasha for having committed a great theft. After their heads were struck off, each body took the head under its arm and walked into the mosque, where they were all buried. Meanwhile the innocence of the unfortunate dervishes was clearly established, whereupon they were declared saints (*Heilige Männer*), and as such have been venerated to this day by the Mohammedans. The accompanying illustration gives a view of their graves.

¹ Bosnia and Herzegovina, p. 206.



PLATE VI.

PARK, ILIDŽE.

With the exception of an excursion to Jajce, the time at our disposal before the meeting of Congress was devoted to archæological studies and occasional rambles to the more accessible spurs of the surrounding hills, which afforded exquisite views of Sarajevo—a never-failing object of delight. The steep lanes



Fig. 3.—TEKIJA OF THE SEVEN BEHEADED BRETHREN, SARAJEVO.

in and leading to the suburbs from the country are narrow, and roughly paved with large stones, among which not unfrequently a carved "Turk's head" may be seen, strayed from one of the numerous cemeteries which are almost everywhere to be met with—the little plots beside the dwelling-houses being often used as such.

The most fashionable place of resort is Ilidže, eight miles distant, but easily accessible by train and carriage (Plate VI.). Of the more extended excursions the ascent of the Trebević is the most interesting from a scenic point of view. Having myself failed to accomplish this almost dutiful task, I take the liberty of quoting the words of M. de Blowitz, who visited Bosnia a few weeks earlier:—

Bosnia, like every country which aspires to become a goal of travel, has its mountain. It is called Mount Trebević, and is 1700 metres above the level of the sea. Some 100 metres below the summit is a pavilion constructed by the Alpine Club, and at the summit, from the top of a sort of stone table, the traveller has a most extended view of Bosnia; indeed, the view embraces almost the entire country, with its constant circles of mountains, its lakes and rivers, its green hills and arid rocks. The splendour of this view, after a three hours' scramble up the slope on the backs of the sure-footed little Bosnian horses, and the sight, I might add, of the cloth laid in that high air, were equally rewarding. One has there no repugnance for the kid's meat roasted between two stones, and which an old Albanian carves with infallible sabre, and with which, I imagine, he has in his day and generation cut up meat of quite another flavour.¹

¹ Nineteenth Century, October 1894.

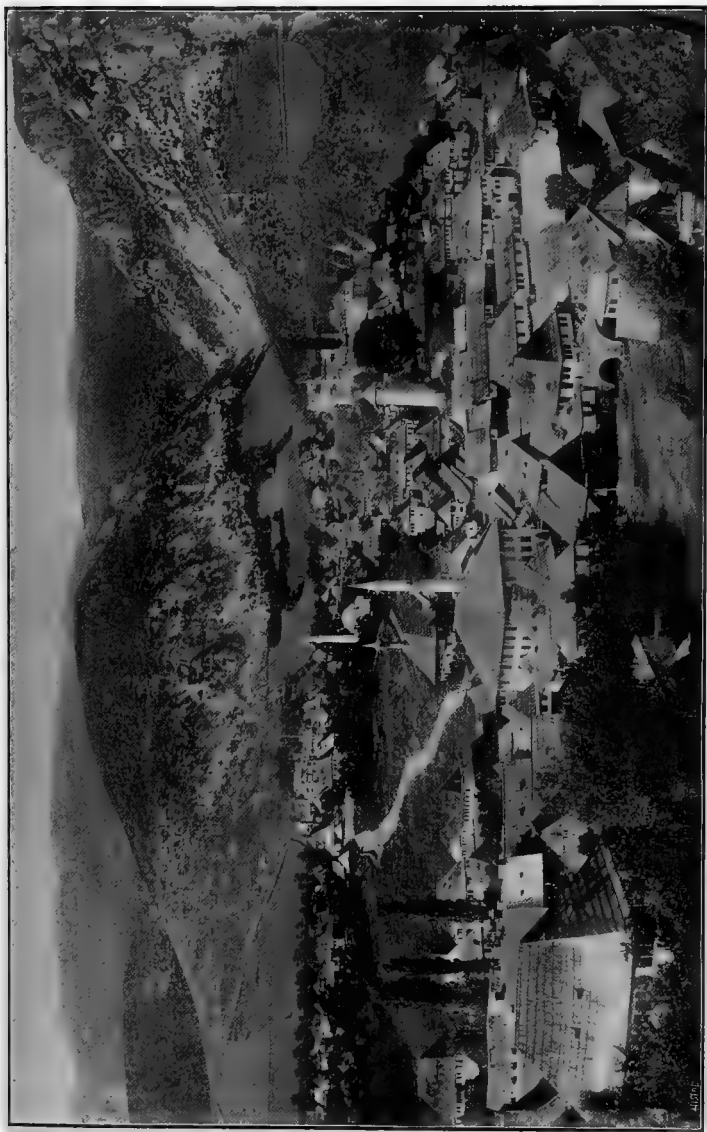
CHAPTER II.

EXCURSION TO JAJCE AND THE LAKE OF JEZERO.

THE journey to Jajce, occupying from 9 A.M. till nearly 10 P.M., was accomplished as far as Travnik by railway, and thence by diligence: now (1895) the entire journey may be made by railway. The branch line, part of that which eventually goes to Spalato, diverges from the main line at Lašva, and ascends the valley of the same name amidst scenery equally charming as that of the Bosna. A break-down of some part of the machinery by the way caused a delay of half an hour, so that by the time we got to Travnik the diligence was already awaiting the arrival of the train. This diligence proved to be the very opposite of the ordinary stage-coach. It was, in fact, a substantial landau, with the addition of a covered *coupé* immediately behind the driver's box, and was drawn by four horses. We mounted into the *coupé*, and a native gentleman, the only other traveller, had the body of the carriage entirely to himself. The horses were eager for the start, and we drove off at once. Above the narrow pass into which the town of Travnik

is huddled (Plate VII.) the valley widens considerably, and afforded a full view of the range of mountains towards which we were driving. Here the Lašva breaks up into a number of rivulets which collect the surface-waters from different directions. Shortly after leaving the town we* passed on the left a huge poplar-tree, 9 feet in diameter, and said to be 360 years old, under the shade of which is the grave of the famous dervish Ismail Baba, a much-frequented place of resort for the Mohammedans of Travnik. Farther along, some Bogomile gravestones lay on a prominence to the right. For the first hour we drove at a rattling pace. By-and-by we skirted a succession of beech-clad ridges; then zig-zagged the mountain-side amidst lofty trees. A few drops of rain, at first welcomed as an alleviation of the stifling heat, soon developed into a heavy thunderstorm. We had just got to the summit when the climax was reached, and for the next half-hour it rained a perfect deluge. Truly the flowing tide was with us, and soon both ditches and road became one great torrent of muddy water. Yet within another half-hour' the sun was shining in a blue sky, and by the time we got to Dolnji Vakuf the roads were as dusty as before.

Dolnji Vakuf, a town of some 2000 inhabitants, lies on the right bank of the Vrbas, in the midst of highly romantic scenery (Plate VIII.). Here were changed both drivers and horses, and even our fellow-traveller disappeared, with no one to take his place. Though a pretty town, with charming gardens and orchards, it cannot boast of an hotel, and the miserable inn, or *han*,



TRAVNIK.

at which we halted could scarcely supply a piece of bread. From this onwards it was a gradual descent, and only two horses were requisite. The route lay on the right bank of the Vrbas, so close to the turbulent stream that the sound of its noisy waters never left our ears till we reached Jajce, a distance of some twenty miles. Our new driver spoke German, and appeared anxious to communicate his knowledge of the country. About six miles beyond Vakuf he pulled up at a Bogomile gravestone close by the roadside, and notable as having sculptured on it both the cross and the crescent (a bent arm, the hand grasping a cross, and beneath it a crescent). Below this the valley narrowed; but darkness soon put an end to all sight-seeing. Crossing the Vrbas for the first time, after a run of three hours from Vakuf, and skirting some rocks on the farther side, we found ourselves suddenly in the proximity of a roaring waterfall. From the sound made by the horses' feet we recognised that we were now crossing a wooden bridge; after which, a sharp turn to the right brought us to a lofty arched gateway, seen through the dim light. Cautiously clearing the narrow entrance, the driver made a grand flourish with his whip, and in less than a minute we were at the door of the Grand Hotel, Jajce. The landlady, a jolly matronly woman, warmly welcomed us; and after a meal which did duty for both dinner and supper, the fatigues of the day were soon relegated to the great lumber-room of forgotten events.

Next morning, long before rising-time, I was gazing

through an open window at the combined waters of the Vrbas and Pliva as they rolled past in the chasm beneath (Plate IX). The hotel is built so close to the brink of the precipice that only in one place is there sufficient space for a covered verandah. Near where I stood a massive elder-tree, whose gnarled stems had become thickly intertwined with evergreens, projected its bushy head above the cliff. It was the undisputed home of a few hooded crows, which hopped among its branches with the most absolute indifference to my proximity. From the same view-point, during the heat of the day, I watched these birds indulging in the luxury of a cold bath in the shallow pools on the opposite side of the river. The scene was truly ludicrous, from the child-like caution displayed by them in selecting the proper depth before they ventured on the great splutter and flapping of wings with which the operation was conducted.

The town hugs the steep slopes of a conical hill, the summit of which is imposingly crowned by an old castle (Fig. 4). From the rocky heights on the south-west the Pliva comes rushing down, and falls into the bed of the Vrbas with a leap of 90 feet, forming one of the finest cascades in Europe. Jajce lies in the northern angle formed by the junction of the two rivers; and as the banks of both are precipitous, the town is well protected along half its perimeter. The waterfall is not accessible from the town side of the Pliva, and so one has to pass through the arched gateway and over the wooden bridge to the apex of the angle on the other



Barjan.

PLATE VIII.

DOLNJI VAKUF.

side. Here has been recently erected a circular viewpoint (*Rudolfs-Ausblick*), from which a stone stair leads to the base of the precipice. As we descended its steps we passed close by a tottering mill, fearfully

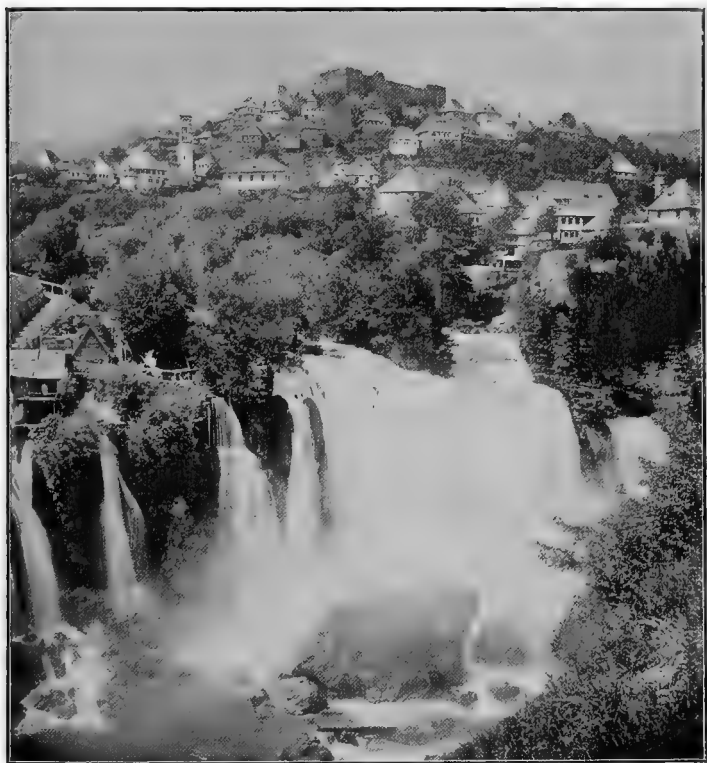


Fig. 4.—JAJCE AND THE FALLS OF THE PLIVA.

situated on one of the six or seven channels into which the Pliva divides before its final disappearance over the rocks. An under-cliff recess behind the fall may be entered by visitors indifferent to a little wetting.

Through the side dribblets I made a dash inwards, and from this strange standpoint contemplated the water as it tumbled overhead. For the moment I fancied the aqueous mass was as immovable as a gigantic icicle; but the awe and stern reality of the situation made me feel as if I were an intruder on the private domain of some water-nymph, and I was soon glad to make my escape. One of the best views of the fall is from the opposite bank of the Vrbas; but from whatever point it is seen, it presents to the eye and the mind all the characteristics of an ideal waterfall—a thundering noise, dense clouds of spray, and a perpetual rainbow in sunshine. It has, moreover, one special feature rarely conjoined with such sublime phenomena of nature—viz., a singularly picturesque town as its immediate background.

Ascending to the Travnik road by a slanting foot-path, we passed a cottage with an attached nursery-garden, beyond which, in the bed of the Vrbas, are the public baths. It appears that the Pliva is too cold for such a purpose, a statement which rather surprised me, seeing that its waters pass through three small lakes, during which, one would suppose, they would have sufficient time to acquire the ordinary temperature of a surface river. (The Pliva rises suddenly among the hills about nine miles beyond Jezero.)

Along the up-side of the bridge over the Pliva are three or four wooden houses supported on piles, and connected with the bridge by a few descending steps. These are corn-mills, arranged so as to utilise



VALLEY OF THE VRBAS AND HOTEL JAJCE.

the water-power of the numerous currents and rapids into which the river is here broken up owing to the roughness of its bed. We entered one, and inspected the internal arrangements. Extended along the wall, facing us as we entered, was a row of ten small hoppers containing different kinds of grain. Each hopper was suspended over a rapidly whirling grinding-stone fixed to a wooden shaft which descended through a hole in the lower millstone, and terminated in a stone socket in the bed of the river. A few inches above this socket the shaft was armed with ten or fifteen spoon-like spokes, against which a current of water was directed by means of a long wooden aqueduct. The irregular motion of a stick, kept bobbing on the surface of the millstone, was conveyed, by means of another slender stick attached to it, to the outlet of the hopper, and thus regulated the supply of grain. The miller raised a lid and showed us how the meal dropped over into a box in front of the stone.

At the end of the bridge there is a perpendicular cliff of limestone, in the face of which some cellars have been artificially excavated. In one of them I was shown a couple of bags of frozen snow which had been brought that morning from a neighbouring mountain, a journey of some five hours.

But Jajce is not less interesting to the historian than to the lover of the picturesque. With the history of its citadel are associated some of the most stirring events in the final struggle against Turkish supremacy, and long after the fall of the Bosnian monarchy this strong-

hold remained as the last remnant of its ancient power. Its form is an irregular quadrilateral, 218 yards in greatest length, and half this in breadth. The massive wall, with its array of battlements, towers, and bastions,



Fig. 5.—SCULPTURED CAPITAL, JAJCE.

is still in good preservation; but of the pre-Turkish buildings inside nothing remains but a few sculptured capitals found built into the external wall of the fortress. Some of these have been brought to the Museum at Sarajevo (Fig. 5). They belong to the Veneto-Gothic style of architecture, and, according to Dr Truhelka, point to

the conclusion that they are remains of a palace erected here by Herzog Hrvoja, who, it is known, had friendly intercourse with the Venetians.

The following incident in the final struggle against the Turks, as recorded by Mr Asboth, may still be read with interest:—

After the Turks had for some time in vain laid siege to the town, it appeared as though they were going to relinquish their

fruitless task. Peter Keglevich, however, learnt that this was only a ruse, that the Turks were only pausing and concealing themselves under shelter of the forest and ravines, and were engaged day and night in the manufacture of scaling-ladders. Keglevich, therefore, guarded the walls still more zealously, but sent a portion of his troops into the forests to wait in hiding there until the firing off of a cannon should give them the signal for a rear attack upon the enemy. But he also devised another stratagem. As it was on the eve of a festival, he assembled the girls and women, and commanded them to draw up before the town and to dance and sing upon the "Kraljeva-Polje" (King's mead), as they were in the habit of doing in times of peace and security.

In the course of the night the Turks emerged from their place of concealment with scaling-ladders. As they approached the town they heard merry songs being sung to the guzla, and could see the courageous women dancing in the moonlight; and in the face of so much freedom from care they, too, carelessly broke their ranks and threw the ladders aside, that instead of forcing their way into the town they might force their way amongst the women.

Upon the instant sounded the report of the cannon, Peter Keglevich came storming out of the fortress, the troops standing in concealment fell upon the Turks in their rear, the women and girls caught up arms, and the Turks were mown down to a man.¹

But this was the last victory of the Hungarians in Bosnia, and shortly afterwards (August 26, 1526) they were defeated by the Turks at Mohacs. Little over a year from that date the garrison of Jajce surrendered to the Turks, in whose hands it remained till the occupation of the provinces by Austria-Hungary in 1878.

Half-way up the declivity, and a little beyond the

¹ Bosnia and Herzegovina, p. 413.

Church of St Luke, there is an underground church entirely excavated in the solid rock—the so-called “catacombs.” To visit it one has to apply for admission tickets at the Government office. A young man accompanied us from the office to the keeper, who lived close by, and having secured torches, we descended into the “catacombs.” A stone stair of

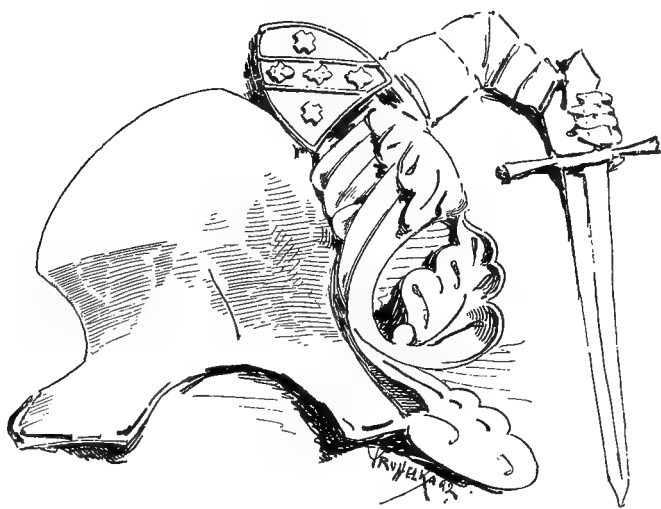


Fig. 6.—HERALDIC ARMS OF DUKE HRVOJA IN “CATACOMBS,” JAJCE.

some sixteen steps conducted us to a rectangular room about 7 feet wide and 18 feet long, from which a side door leads to the church. On the wall panels (Figs. 6 and 7) on each side of the door are some obscure sculptures, now recognised to be the heraldic arms of Duke Hrvoja, “by the grace of God glorious Prince of Spalato and Waywode of all Bosnia, chief lieutenant

of King Ladislaus." On entering, the space widens to the right and left, and along the side walls and farther end there are deep recesses with raised seats and altars roofed over with Gothic arches. One of the altars has a cross, sun, and moon sculptured on the panel above it. The total length of the church is 45 feet, and greatest height 13 feet (Fig. 8). The breadth, of

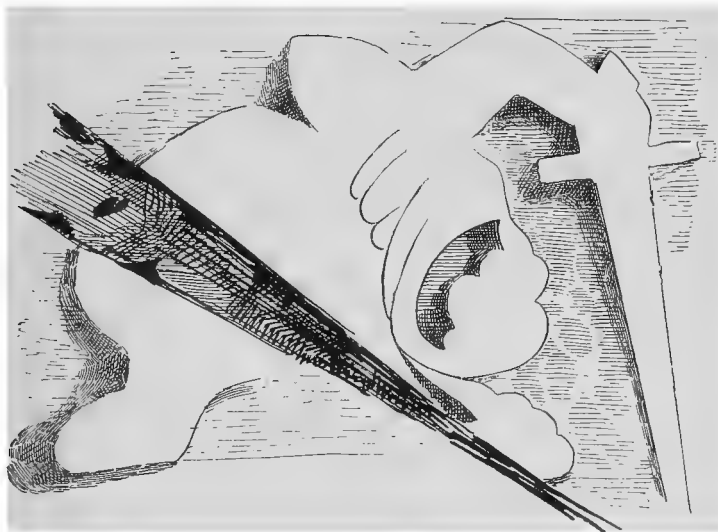


Fig. 7.—UNFINISHED ARMS IN "CATACOMBS," JAJCE.

course, varies at different points according to the depth of the recess, but it may be reckoned at 16 to 32 feet. Near the middle of the floor there is a hole with steps leading to a stifling crypt (Fig. 9) measuring 5 yards by 4 yards. Here also there is an altar, and above it a double-armed cross with a sun and a moon, one on either side (Fig. 10). The most probable theory of the origin

and object of this curious architectural monument is that which assigns it to the great Hrvoja (1400-1411), who designed the crypt as a family tomb. It has also

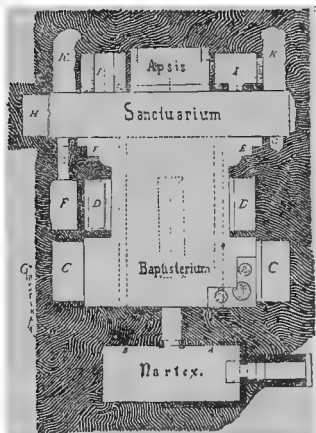


Fig. 8.—GROUND PLAN OF "CATACOMBS," JAJCE.

been suggested that prior to the excavation there might have been a natural cave to which the early Christians were in the habit of resorting. The entrance to the "catacombs" is in a small garden on the cliff overhanging the valley of the Pliva. Here there is a neatly-constructed outlook which commands a charming view of the surrounding landscape.

Close by the "catacombs" are the ruins of the Church of St Luke, with a conspicuous Italian campanile, dating from the fourteenth century. The tradi-

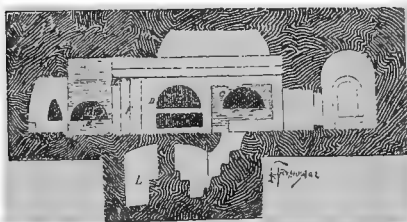


Fig. 9.—SECTION OF "CATACOMBS," JAJCE.

tion is that the church was built where St Luke lived during the later years of his life, died, and was buried. After the Turks had conquered Jajce the church was used as a mosque, evidence of which still remains in a small minaret on the top of the campanile. The campanile is of the Romanesque style, and graceful

in all its lines and proportions. It is considered one of the most important art monuments of Christian times in Bosnia.

Nor is the neighbourhood devoid of materials interesting to the antiquary. In the Pliva valley, near Šipovo, some seven miles above Jezero, Dr Truhelka observed some indications of a Roman settlement at three different localities, and upon making excavations on one of the sites he unearthed what is regarded as the finest piece of Roman sculpture hitherto found in Bosnia.¹ It is a sepulchral monument having a front like the façade of a temple supported on columns. Below a projecting moulding, with a floriated frieze (acanthus), there is an inscription surrounded by a border formed of two interlacing bands. The tympanum contains a portrait supported by a winged genius on each side, and the left corner space is filled in with a dolphin, the corresponding portion on the other side being wanting.

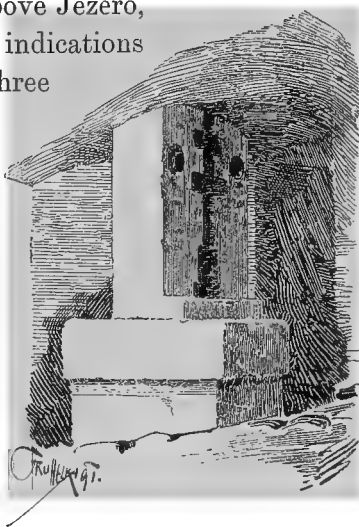


Fig. 10.—ALTAR IN CRYPT OF "CATACOMBS," JAJCE.

Near Jajce there have also been found an altar, de-

¹ *Wissenschaftliche Mittheilungen aus Bosnien und der Herz.*, vol. ii. p. 91, and Plate I.

dedicated to Jupiter, a Roman fibula, and some other bronze ornaments.

Jajce is famous for its blue trout, and so before leaving in the morning I had ordered a dish of them for dinner; but on our return the landlady informed us that trout were not to be had, but that she had secured a still greater delicacy. Whereupon she uncovered a large basket containing a number of *Krebse*, a small species of fresh-water lobster.

In the afternoon we drove to Jezero, a village charmingly situated at the upper end of one of a series of small lakes in the valley of the Pliva. There is an excellent carriage-road all the way, and during the hour and a half it takes to drive to the village one passes through a succession of scenic combinations of unsurpassable loveliness. The road keeps to the north side of the Pliva, and as we ascended its steep bank our thoughts got bewildered with the profusion of rapids, frothy pools, and green islets with which nature has adorned its rock-terraced bed. Foaming rapids and bubbling pools comparable to these may, indeed, be seen elsewhere, but such green islets nowhere except in the Pliva. I call them islets for want of a better name. They vary in size from a few feet to as many yards in diameter. Owing to the amount of calcareous matter held in solution by the water, every stone or patch of gravel which projects above the surface becomes the focus for the deposition of a yellowish chalky matter, which seems to afford a peculiarly congenial habitat for a tall species of grass. Alder and other bushes contest with this grass for the supremacy of the



PLATE X.

THE UPPER LAKE OF THE PLIVA.

Langens

larger islets, but the smaller ones, which give the scene its most characteristic appearance, are far more numerous. They are of an emerald-green colour, and look as trim and tidy as if they had been so many large flower-pots filled with luxuriant bunches of corn just coming into ear and artificially planted in the water.

Of the three so-called lakes in the Pliva valley only the upper attains to dimensions worthy of the name; and even it measures only about two miles in length, and less than half a mile in breadth. The first we come to is a mere mountain tarn. The second is a pleasing lakelet, with a much indented shore-line, but somewhat tame environments. It is separated from the third, or upper lake, by a precipitous ridge of scraggy rocks and green bushes, through which the Pliva, in many channels, comes tumbling down. The incessant noise of these miniature cascades is broken only by the inharmonious clattering of a few mills picturesquely poised on the stray rivulets at the side. The calm serenity of the upper lake presents a marked contrast to the above somewhat turbulent scene (Plate X.). Wooded hills, so symmetrical that many of them appear to come little short of a perfect pyramid, may be seen either in reality or with equal distinctness reflected from the surface of the water. The upper part is greatly encroached upon by rank aquatic vegetation—said to be a favourite haunt of the otter.

The 600 inhabitants of Jezero, many of them rich Mohammedan Beys, who retired into private life after the occupation of the country by the Austro-Hungarian troops, live in a world of primeval simplicity. The

village is situated, partly on the left bank of the river as it enters the lake, and partly on an island—on the margin of which were to be seen hauled up a number of single-tree canoes. The natives go out fishing in these primitive boats, and, for greater security, tie them in twos together.* Just before entering the village there is a tourist-house, recently erected by the Government for the convenience of travellers. It contains a waiting-room and a few bedrooms, and on the lake-side there is a covered verandah with steps leading to the water's edge. A German-speaking girl of smart appearance was in attendance and supplied light refreshments. Close by there is a boat-house in which a few pretty row-boats are kept which can be hired at a trifling cost. The houses on the island are partly built on piles, and in some places project over the water; indeed, it is not improbable that the whole island is the accumulated *débris* of lake-dwellers whose dwellings originally were entirely pile-structures. A little above the island there is a natural barrier across the river through which the water finds an exit by numerous channels and rapids, some of them being utilised for corn-mills in the usual way. Whatever the original composition of this barrier may have been, its projecting portions are now completely covered with calcareous deposits which yield a luxuriant crop of wild plants. We landed on one spot in the middle of quite a forest of gigantic flowers in full bloom and of all shades of colour. A coming thunderstorm hurried us back to the tourist-house for shelter. Here we were joined by a loquacious fisherman



who offered for sale some beautiful trout weighing about 1 lb. each. 'But his animated harangues were entirely lost on the company, which consisted of ourselves and two German travellers on their way to Banjaluka. The attendant, who acted as interpreter, seemed to be greatly amused at the subject of his discourse. Through her I bought two of the fish at 4d. apiece, and brought them to the landlady at Jajce, determined we should not leave the district without tasting the famous trout of the Pliva (Plate XI).

Karaula Mountains.

We made arrangements to return to Sarajevo at 6 A.M. on the following morning—not, however, by the diligence route, but by another and shorter one across the mountains to Travnik. At the appointed time we descended, to find the landlady preparing hot coffee for immediate consumption, and a luncheon parcel for the way. All things being ready we made our exit, and saw for the first time the equipage which was to convey us. In shape, size, and appearance, it might have passed for a well-preserved specimen of a Roman *biga*, or an imitation of it in a later age. From the brand-new carriage which brought us to Jajce, and in which we had driven to Jezero, to this extraordinary vehicle, was too violent a shock to be endured with outward composure. Our amusement was quickly interpreted by the landlady, who remarked that good carriages could not be taken over the mountains, and

that we should find this one, though not elegant in appearance, very comfortable—a prediction which I am bound to say our experience amply justified. Confidence was also partly restored by noticing that under the primitive harness were two smart-looking ponies. It is at such moments that a smattering of logic comes usefully into requisition. After some deliberation the net result was that there was no alternative but to proceed, as this was the only carriage to be had. So we humbly took our seats, bade adieu to our smiling landlady, and drove off in a dense mist, into which the keenest eyesight could hardly penetrate beyond a few yards. Our driver was a tall, gaunt-looking fellow, with white trousers, insufficient to cover his brawny legs, and a grey waistcoat, from which protruded two white sleeves. A pair of wooden slippers and a head-covering, which might once have been a fez, completed his outward attire. His professional capacity was signalled by a remarkable product of native industry in the form of a whip, clearly designed more for use than for ornament—an inference which I deduced from watching the lively effect its appearance had on the ponies. His mental endowments were to us an unknown quantity, as we could not furbish a single vocable for the interchange of ideas.

After crossing the Vrbas we deviated to the left of the diligence route and entered a narrow valley, having on one side a gurgling stream almost invisible by a line of thick alders and willows, and on the other an indefinable forest of underwood—hazel, blackthorn, beech,

oaks, &c. Here and there were to be seen huge trunks of decayed trees whose secondary foliage gave them the appearance of gigantic Brussels-sprouts. Every leaf, twig, and blade of grass was enveloped in a dewy mantle. Above this mantle was a vast aerial network of cobwebs tied with nautical skill to points far and near. But what gave an unusual charm to these wonderful contrivances that morning was that every filament looked like a string of tiny pearls. For the first couple of hours, with the exception of some cattle being driven to pasture and a few men loading a waggon with great logs of wood, we saw no signs of human activity, nor was there much stir among the animal world. A sudden opening in the mist, though only for an instant, brought a ray of hope that this nebulous dreariness was about to vanish, as it disclosed the top of a wooded hill seemingly far up in the blue sky. But soon another rift appeared, which gradually widened until the whole cleared off. With the return of extended vision we found ourselves in an open valley with sloping fields and a sprinkling of farmhouses. For the first time the driver made a sign of inward intelligence by pointing to a white streak zigzagging a lofty ridge right ahead of us. It was the road we had to traverse. The day now became glorious and the road decidedly *accidenté*. The trees grew larger, and to the usual oaks and beeches were added some specimens of the fir, the spruce, and Norwegian pines. At last, at the end of a long descent through a magnificent forest, we came to a halt at a roadside cottage. The driver dismounted, and we gathered

from his movements that the horses were to be fed, and so we also dismounted. The owner of the cottage, dressed in a garb that might pass muster among Scottish peasants, sat at the door grinding coffee by means of one of those pretty handmills so common among the Turkish people, but he took no notice of us. The approach of the carriage, however, roused the wife and daughter, who quickly appeared on the scene. The latter, an extremely pretty girl of about eighteen or so, was neatly dressed in the divided skirt, and walked in wooden slippers. Coming at once towards my companion she scanned her closely up and down, felt the material of her dress, examined her ornaments, and compared them with her own. With an inquiring gesture I asked if she were a Mohammedan, but the very word made her shrink with horror. No! she was a Catholic—a fact which I might have known from her unveiled face. Whereupon the mother stepped forward, pulling up the sleeve of her dress to show me a cross tattooed on her forearm as proof that they were Christians. It seems to be an almost universal custom among the Catholic women of the peasantry throughout Bosnia and Herzegovina to have themselves tattooed on the breast and forearms, and even sometimes on the forehead, with a cross, associated with some other fanciful ornaments, as seen on Fig. 11, taken from the photograph of a girl from the neighbourhood of Zenica.¹

At the end of a log-house on the opposite side of the

¹ On this curious custom see an article by Dr Glück of Sarajevo in 'Wissenschaftliche Mitt. aus Bosnien und der Herzegovina,' Bd. ii. p. 455.

road was a square platform, with a small table and



Fig. 11.—CATHOLIC PEASANT GIRL WITH TATTOO-MARKS.

seats, well shaded by a group of leafy beech-trees. It

was signalled to us by some gestures of the driver that here we might sit down and take our breakfast, and so to this balcony I carried the paper parcel, which contained some bread and a roasted chicken. Coffee was the only refreshment the establishment could supply. Behind the log-house, and within a few yards of our breakfast-room, were three young dogs tethered to a stake, who gave us a warm and friendly greeting. Also two cats from the cottage came tripping across the road, and in an unceremonious way intimated that they would have no objection to share the chicken with us, a compliment which the dogs would willingly have paid us were it not for their tethers. The girl brought us a supply of coffee, served in a pretty metal coffee-pot on an ornamental tray. It was then I had an opportunity of observing that her white hands and tapering fingers were quite in keeping with the classic beauty of her face. The fragments of the chicken were collected and replaced in the paper, a performance which the dogs watched with wistful eyes. To the nearest I pitched a bone, but it fell short of the circle of his gyrations, and with a frantic effort he broke his cord, and in a twinkling was making free with the parcel; and it was with great difficulty I rescued some of the spoil for his less audacious companions. Meantime I missed our Jehu, but he now reappeared from the cottage carrying a black pan and a wooden spoon, and took his seat beside the coffee-grinder. The pan contained some kind of pottage, which he forthwith proceeded to sup. The old woman—whose hands, by the

way, were of a different calibre from those of the daughter—had a few words of German, and with these and some expressive gestures she manifested the usual feminine inquisitiveness. In answer to an inquiry as to our nationality, I said we were from “Schottland,” but she had never heard the word before, and did not know that such a place was in existence. The cottage had only a “but and a ben,” but yet it offered lodgings to travellers in this lonely place, having a signboard with the word *Einräumer* on it.

Matters being settled to the satisfaction of all parties, we again mounted into the shandrydan. Our surroundings henceforth assumed a more Alpine character, and tall coniferæ, instead of being stragglers, now dominated the forest. Occasionally the route was over an open ridge, with far-reaching views, and deep glens fearful to look down upon. At last we came to the highest point, which, according to a signpost on the roadside, was 3907 feet. For some distance on the heights the trees almost entirely disappeared, and the open ground was carpeted with a thick layer of grass. The view over and a long way beyond the valley of the Lašva was magnificent. For a moment it reminded me of some of the more picturesque parts of our Scottish Highlands. The cool breeze and some broken clouds contributed to make the parallel more striking; but, on analysis of their component elements, one single fact was sufficient to dissipate the entire fabric of resemblance. On these mountains there was no heather to be seen, nor in all my rambles in Bosnia have I observed a single sprig of

it. What would Scotland be were it deprived of its great heather mantle? Then, again, Bosnia has not been subjected to the polishing and moulding influence of glaciation. How much this has to do with the general features of a country I will allow geologists to say.

The steepness of the side of the mountain, which we had now to descend to reach the basin of the Lašva, necessitated long windings in the road; so we preferred to walk by a footpath which joined the carriage-road in the valley below. During the descent we came upon a number of corn-mills, placed at intervals on a gradually increasing rivulet. The water arrangements of one were interesting. Close to the horizontal wheel was a long stout log of wood, perforated lengthwise, and poised at an angle of about 45° . At its lower extremity the perforation slanted so as to bring the direction of the orifice into the horizontal line. A rudely-constructed wooden conduit, supported on stakes, conveyed the water to its other extremity. If the conducted current contained more water than was necessary to keep the tube full, the surplus just spluttered over. Such was the ingenuity of this simple arrangement that it secured a propelling power of uniform strength. It did not matter how much water was conveyed, as it could do no more than fill the tube; and hence the velocity of the wheel was regulated by a force which always remained constant. It was, in fact, a pure turbine.

Before reaching Travnik we passed through a richly cultivated district, with groups of houses here and there, at one of which we were forced to take refuge from a

passing shower. A few yards from a roadside cottage there was a café of simple construction, merely a rectangular pen with benches all round, and a lofty roof supported on wooden posts. While my wife took shelter under the projecting eaves of the cottage, I entered the café and sat down among some dozen bearded and turbaned men who appeared to be quietly regaling themselves with coffee and cigarettes. As usual, in one of the corners there was a large clay oven-like fireplace with a charcoal fire for making the coffee. Coffee is always made fresh to order, and the process is both simple and speedy. Measured quantities of coffee, sugar, and water are put into a small pan and the whole heated to boiling point, a few drops of cold water being afterwards added. It is then poured out, grounds and all, into small cups. Each cup cost little over a halfpenny, but being small I repeated the order several times, much to the amusement of the company, who seemed greatly astonished at my capacity for coffee-drinking.

It was market-day at Travnik, and its one long street was literally swarming with country people. In the gorgeous costumes in which they were clad, white was decidedly the predominating colour. Having a couple of hours to spare before the train left for Sarajevo, we mingled with the good-natured crowd and watched their noisy transactions. In Britain and other countries, where time is considered equivalent to money, much of the business transacted would be of less value than the time spent over the bargain. But at Travnik it is not an uncommon thing for a strong active man to come a

journey of four or five hours for the sole purpose of selling or buying an article, the value of which might not exceed a shilling—a sum, however, which in that part of the world represents a fair living wage for a day's work. The value of money can only be ascertained by estimating the amount of the comforts of life which can be procured for a given sum. Yet how seldom is this primary element in the science of economy considered in our modern labour disputes!

Long before train-time there was a crowd of people at the station pressing forward for tickets. I did not care to mingle in the fray, and so hung back, waiting for an opportunity to be served. But the longer I waited the larger became the crowd. At last a burly man in military dress came in and quickly forced his way to the front. After securing his ticket he noticed me, and, intuitively grasping the situation, at once turned round and addressed a few forcible words to the bystanders, which, whatever their meaning, had a magic effect, for immediately a way was opened for me to the ticket window. We arrived at Sarajevo at nine o'clock, tired but immensely delighted with our experience of Bosnian life and scenery.

CHAPTER III.

THE CONGRESS OF ANTHROPOLOGISTS AND ARCHÆOLOGISTS
AT SARAJEVO (AUGUST 1894).

OCCUPYING the borderland between the highly differentiated civilisations of the West and the East during historical times, Bosnia-Herzegovina could not fail to have been affected more or less by influences emanating from both directions. Accordingly, we now know that the provinces are extremely rich not only in the class of historical remains, but also in that relating to prehistoric times. Under the application of the scientific methods of modern archæology no past civilisation, however far its limits may lie beyond those of history, is likely to escape detection sooner or later; and however meagre the traces of that civilisation may be, they often disclose a story of humanity more reliable than could be constructed from written records. The materials with which the archæologist deals are absolutely free from the bias and ignorance which so frequently distort the statements of the historian.

Recognising the importance of the numerous discov-

eries which have been made in the field of prehistoric research since the establishment of the *Bosnisch-Herzegovinisches Museum* and its staff of experts, the Government invited a number of archæologists and anthropologists to visit Sarajevo, for the purpose of examining and pronouncing an opinion on the remains already brought to light, and by this means to make their archæological value better known throughout the scientific world.

Now that the “Congrès International d’Anthropologie et d’Archéologie Préhistoriques,” which held its eleventh session in Moscow in August 1892, is practically defunct, owing to the hesitation or inability of European Governments to supply the large money subsidies requisite to keep it in life, the constitution and scientific results of the Sarajevo Congress, differing, as it did, both in its inception and mode of procedure, from all previous gatherings of the kind, will be scrutinised with keener interest, inasmuch as it will probably form a precedent for similar archæological meetings in future. It was held during the week from the 15th to the 21st August, 1894, and included among its members a number of well-known European archæologists. Of the twenty-six gentlemen invited, the following accepted the invitation :—

Dr Otto Benndorf, Vienna.

Dr Eugen Bormann, Vienna.

Dr Edmond von Fellenberg, Berne.

Dr Joseph Hampel, Buda-Pest.

Dr Jakob Heierli, Zurich.

Dr Oscar Montelius, Stockholm.

Professor Gabriel de Mortillet, Paris.
Dr Robert Munro, Edinburgh.
Professor Luigi Pigorini, Rome.
Julius E. Pisko, Vice-Consul, Janina.
Dr Johannes Ranke, Munich.
M. Salomon Reinach, Paris.
Herr Josef Szombathy, Vienna.
Dr R. Verneau, Paris.
Professor Rudolf Virchow, Berlin.
Dr Albert Voss, Berlin.

These sixteen gentlemen, together with Dr Moriz Hoernes, Vienna (Secretary), and the local men, chiefly officials of the museum—viz., Messrs Hörmann (Director), von Thallóczy, Radimsky, Fiala, Patsch, Truhelka, Glück, Reiser, Apfelbeck, Weisbach, and Ballif—constituted the Congress.

Except a carefully prepared programme of each day's work, and the questions suggested for discussion in regard to some special antiquities, there were no rules laid down for the conduct of business. Professor Virchow was unanimously elected President, and each speaker was allowed to express his opinions in the language most convenient to himself. During the week of the Congress the members were the guests of the Government at the Hotel Europa, where they were accommodated with rooms, and had their meals *en famille* at a specially reserved table. This was not only an agreeable but a valuable feature of the Congress, as in a short time the members became mutually acquainted with each other's qualifications.

At five o'clock of the evening of the 15th, a reception

of the guests by the Government representatives, the Museum officials, the Mayor and other authorities of Sarajevo, was held in the large hall of the handsome new Government offices. At eight o'clock a grand banquet was given, under the presidency of Baron Appel (Landeschef) and Baron Kutschera (Civil-Adlatus), in the military casino, at which the principal civil and military authorities and the foreign consuls were present.

The actual business of the Congress was begun at nine o'clock next morning, when Baron Appel, after thanking the strangers for coming so far to take part in the investigation of the antiquities of Bosnia and Herzegovina, and wishing them success in the important deliberations in which they would be shortly engaged, called on Herr Hörmann, director of the museum, to read a paper on "Das bosnisch-herzegovinische Landesmuseum, seine Organisation und Ziele." Then followed another paper by Dr von Thallóczy, director of the archives, on "Die Culturperioden Bosniens und der Herzegovina, mit besonderer Rücksicht auf ihre monumentalen Ueberreste."

Afterwards the members were invited to adjourn to the Museum to inspect its treasures, under the guidance of Mr Hörmann (early Christian and other monuments of the middle ages), Dr Patsch (Roman antiquities), Mr Fiala (the prehistoric discoveries at Glasinac and Sobunar), Dr Truhelka (the collection of costumes), and Dr Glück (anthropological collection). On this occasion, however, the visit was only introductory, but ample

opportunities were subsequently given for a more careful study of its contents.

Meantime, special attention was directed to a group of antiquities of the Stone Age, consisting of an immense quantity and variety of fragments of pottery, flint and other stone implements, arrow-heads, scrapers, tools, &c., arranged by Berghauptmann Radimsky in one of the rooms of the ground floor of the Museum, as in the afternoon the locality was to be visited where these remarkable objects had been found. The excavations which yielded this assortment of early relics were still conducted by Radimsky, at a place called Butmir, in the vicinity of Ilidže. The fertile plain of Ilidže, which occupies a wide basin, some 11 *kilomètres* long by 7 broad, has been formed by the *débris* of streams and rain-washed materials from the surrounding hills. The river Bosna, the main branch of which suddenly springs out of the earth some two miles to the south of Butmir, is virtually formed by the junction of a number of streams meandering through the plain from different directions (Fig. 12). In earlier times it is probable that this basin was more or less a lake; and, indeed, in winter portions of it still become submerged. Almost in the centre of the plain, and only separated from the grounds of the modern baths of Ilidže by the sluggish waters of one of these meandering streams, there is a portion of land covering several acres which, on careful inspection, is seen to be more elevated than the part of the plain in its immediate proximity. This elevation was selected by the Government as the site of offices

for a model agricultural farm; and when, in 1893, the excavations for these buildings were begun, it was discovered that all this raised area was composed of the refuse of early human occupancy. Part of this pre-historic settlement, or workshop, as some suppose it to have been, is now occupied by a large dairy and other

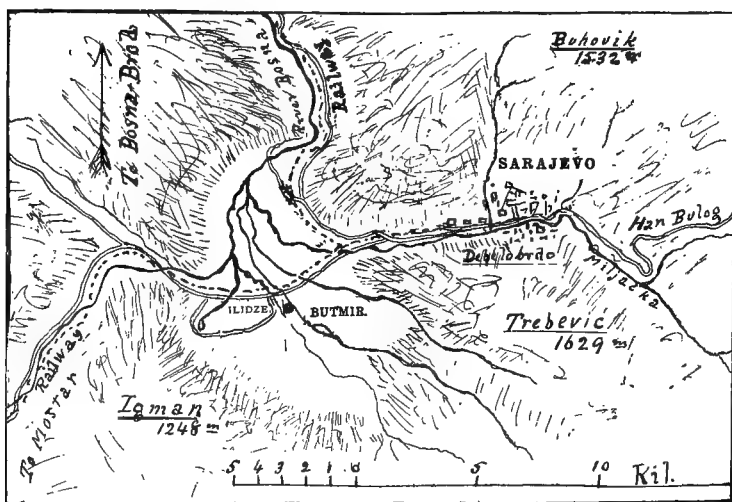


Fig. 12.—SARAJEVSKO-POLJE.

buildings, but the larger portion of it is simply arable land, and could be readily excavated at any time.

Such is a general idea of the neolithic station of Butmir, to which the members were now conducted. A perpendicular section, showing the nature and position of the materials of which this elevation was composed, had been previously prepared; and Mr Radimsky, who superintended the excavations, was there to explain

the details of what had already been done. His Excellency Minister von Kállay, with Frau von Kállay, and a number of visitors from Sarajevo and the hotels of Ilidže, were present, and watched the eager disputations of the *savants* with much interest, if not even amusement—for no sooner had they scanned the sec-

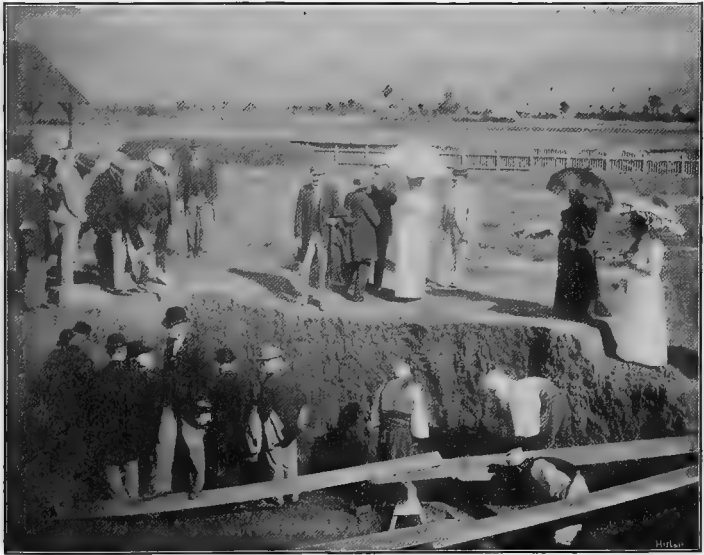


Fig. 13.—MEMBERS OF CONGRESS AT THE NEOLITHIC STATION OF BUTMIR, AUG. 16, 1894.

tion than a difference of opinion as to the nature of the settlement became manifest among them (Fig. 13).

The perpendicular section showed the following deposits arranged in successive beds from above downwards: First, 12 to 16 inches of a clayey soil; secondly, a blackish streaky mixture of clay, mould, charcoal, &c.,

arranged in strata more or less parallel. The depth of this heterogeneous mass was from 3 to 5 feet; and it was in it, dispersed apparently throughout its contents regardless of depth, that all the relics were found. Beneath this again was a natural bed of fine yellowish clay, very adhesive and homogeneous, and acknowledged by all to have been the virgin soil before the relic-bed had been deposited. I may observe that there was no clearly defined line of demarcation between the relic-bed and the virgin clay, as bits of charcoal were frequently seen embedded in the former to a depth of several inches. The discovery of occasional hollows in this underlying clay suggested to Mr Radimsky that they might be the foundations of the original huts of its inhabitants, and that in the course of time the *débris* had so accumulated as to force them to build, from time to time, new huts at higher levels.

Radimsky's theory of this settlement was generally adopted by the members of Congress, except by Professor Pigorini and myself, who argued that the entire phenomena, especially the stratification of the *Culturschichte*, could only be explained on the supposition that the huts stood on platforms supported by wooden piles, and that the refuse, together with the lost and worn-out implements, had gradually accumulated in the vacant space underneath. Hence the "find" at Butmir became the subject of an animated controversy at the congressional sederunt next day. Pigorini opened the discussion by a long speech, in which he advocated that there was a precise analogy between the deposits at

Butmir and those of the *Terremare* of Italy. The principal objection to this theory was the absence of piles, of which hitherto not a trace had been observed, nor, indeed, of any wood whatever. In offering a probable explanation of the absence of piles I pointed out that, although the actual piles were not now to be seen, all the woodwork having completely decayed, traces of the holes in which they stood might be found—a fact which was clearly established on the next visit by the discovery of several round holes, one nearly 10 inches in diameter, penetrating into the underlying virgin clay. On section these holes were seen to have become filled with clay and charcoal. But, of course, it had yet to be proved that the wooden uprights which had formed these holes had been part of a general system of pile-structures. The result of the discussion was that further excavations were considered necessary, particularly in the direction of the limiting margin of the mound, before a decided opinion could be arrived at in regard to the structure of this remarkable settlement.¹

After inspecting the excavations at Butmir the party crossed the river by a wooden bridge to Ilidže, with its fashionable and elegantly laid-out grounds, baths, hotels, playgrounds, lawn-tennis court, flower-beds, promenades, aviaries, &c. (Plate VI.). The primary motive for all this display is its celebrated sulphurous spring, the curative qualities of which had been known to and largely taken advantage of by the Romans—a statement which is clearly proved by the remains recently

¹ See chap. iv.

uncovered around the spring—viz., foundations of houses, mosaic pavements, baths, water-conduits, together with an assortment of the usual industrial remains of Roman civilisation. Some of the mosaic pavements are carefully preserved *in situ*, but many of the smaller objects have been removed to the Museum at Sarajevo. For a long time the actual source of the spring had been lost, but after a careful study of these Roman remains they have succeeded recently in tracing it to its primary outlet, which is now surrounded by a massive stone reservoir within which the hot water may be seen gurgling and bubbling up in large volumes.

One of the attractions at Ilidže, outside the extensive grounds of the establishment, is the new promenade to the *Bosnaquelle*, which, when the trees grow larger, will be a great acquisition to visitors on a hot day. It consists of a carriage-drive, a riding-alley, and a foot-path bordered with rows of trees. In visiting the source of the Bosna by this avenue, we drive directly towards the beautifully wooded Igman, at the foot of which the river suddenly makes its appearance. Here is to be seen, in a slight hollow overgrown with bushes and rank vegetation, the curious spectacle of a number of bubbling centres, some say sixty, all within a stone's-throw of each other, which, quickly uniting, form a tolerably large river—too large and deep to be waded.

At eight o'clock his Excellency Minister von Kállay and Frau von Kállay hospitably entertained the members at supper in one of the private dining-rooms of the restaurant which serves as a common dining-

place to the three hotels at Ilidže, and to which they are attached by covered promenades. In front of the restaurant there is a bandstand and a beautifully kept flower-garden.

The forenoon of Friday the 17th was devoted to an examination of the pre- and proto-historic collections in the Museum, under the guidance of the special experts, as already detailed. In the afternoon the members met in the hall of the Government offices to discuss the general problems arising out of the materials submitted to them, but more especially those from the neolithic station at Butmir. A detailed account of the opinions then enunciated, together with further developments about Butmir, will be given in the next chapter.

Afterwards, in the cool of the evening, an excursion was made, partly by carriages and partly on foot, to Sobunar and Debelobrdo, situated on the lower flanks of Trebević and overlooking Sarajevo. Half-way up we passed the Jewish cemetery, conspicuous by its thickly placed gravestones of white limestone. These are merely oval-shaped blocks lying on the ground, each having one end brought to a flat perpendicular surface, on which the name of the deceased is written—sometimes in Hebrew characters. All these prepared surfaces look in the same direction across the valley of the Miljačka, a circumstance which gives them the appearance of a number of hog-backed animals in an expectant, semi-rampant attitude. Though numerous and closely set, they are without any protecting wall,

but in this respect are not different from the turbaned pillars of Mohammedan graveyards.

On reaching the top of a conspicuous ridge, right above the cemetery, we inspected the remains of a prehistoric fortification, the foundations of which had been recently exposed at several points to show the structure of the walls. This was Debelobrdo, the site of an oval-shaped *Wallburg*, measuring 110^m. in length by 35^m. in breadth. The fort was accessible only on the west and south sides, and here the surrounding walls were in double line. From this commanding outlook we were enabled to comprehend at a glance the situation of the other two localities which yielded the prehistoric remains. In ascending from Sarajevo one reaches first, after a short climb, an uneven terrace (Sobunar) stretching east and west, at the base of some precipitous cliffs which form the face of the higher ground beyond. At the west end this ridge terminates in the prominence on which we then stood. Standing on its eastern brow, the terrace of this undercliff, with all its irregularities and sheltered corners, lay before us like a map. There, on a raised platform behind some rocks at the base of the steep wall of cliffs, and in the vicinity of a copious spring, the remains of prehistoric huts containing relics of different ages have been found. Casting now our view on the right-hand side, we see that the ground rises gradually into another prominent point (Zlatište), on which remains of ancient fortifications have also been observed (Fig. 14). These three local-

ities Mr Fiala considers to have been parts of the same system of habitation. In time of peace the occupants of the hill-forts lived in the hut-dwellings and rock-shelters at Sobunar, where they had plenty of water and shelter from storms; and only when danger was suspected did they go to the forts. Debelobrdo just overlooked the hut-village, and afforded immediate protection in the event of a sudden attack; whilst the



Fig. 14.—SOBUNAR, ZLATIŠTE, AND DEBELOBRDO.

people when hard pressed would convey themselves, their cattle and effects, to the more distant Zlatište.

Saturday the 18th was a holiday, Sarajevo being *en fête* in honour of the Emperor's birthday; and as special services were held in the principal churches and mosques, the members took advantage of the privilege extended to them to attend. We first visited the Cathedral—a large new building in the Romano-Gothic style, close by the National Museum—con-

spicuous by two lofty and symmetrical spires which surmount its frontal façade. Inside there was a large congregation, including a number of officials both civil and military, who, as well as a crowd outside, were awaiting the arrival of the Landeschef and his military staff. After a short time we left, and went into the Oriental Orthodox Metropolitan Church. Here was a still larger crowd of worshippers, among whom was Baron Kutschera occupying a prominent place under a gorgeous canopy near the centre of the church. He, as also representing the Government, received the address in honour of the Kaiser's birthday. But the most novel of the special services was that held in Careva-Džamija, the official mosque of the Mohammedans, and one of the oldest in the town, having been built by Sultan Mahmud, the conqueror of Bosnia. Strangers were admitted by a side door to a small back gallery overlooking the body of the mosque, without, however, having to take off their shoes. Each Mohammedan as he entered deposited his slippers in a hollow or slit which extended along the floor parallel with the gallery, and stepping forward began muttering his prayers with the usual bodily prostrations. Among the worshippers was Mehmed Beg Kapetanović, Mayor of Sarajevo. As soon as Baron Appel appeared in the gallery the address to the Kaiser was read, and the service came to a close. This mosque is situated on the left side of the river, in front of the Konak, the official residence of Baron Appel.

Nothing gives a better idea of the diversified elements which ramify through the community than their religious doctrines and ceremonies. Christianity spread among the Slavs from two great centres—viz., Rome and Constantinople. Coincident with the introduction into the country of the religious rites and ceremonies peculiar to each of these centres, came also their respective methods of writing. From the West came the Latin alphabet, and from the East a set of characters known as Glagolitic, which are clearly seen to be mere variants of the Greek letters. About the middle of the ninth century, Cyrill of Thessalonica translated the Bible into the Slavonic tongue, inventing for this purpose an alphabet which still bears his name; and there can be little doubt that it also emanated from the same source as the Glagolitic. It would appear, too, that the Bosnian alphabet, the chief medium in which the national literature has been transmitted, is a combination of these two early forms of writing, with such alterations as might be expected from the modifying influences of time and current events. At an early period the Catholics admitted the national language, side by side with the Latin, in the service of the Church, just as we find in other Popish countries. But the Orthodox Church would not brook any interference with her traditionary customs, and she still adheres to the old Slavonic language and the Cyrillic writings.

The Turks, naturally, introduced their own language and religion; and, being more conservative than any

other people, have stereotyped the civil and religious laws of the Koran throughout the country.

The "Spagnols" are the descendants of Jewish refugees who fled from Spain in the sixteenth century, during the persecutions of the Inquisition of Philip II., and found here an asylum. They still speak Spanish, and write it in Hebrew characters.

Thus, there is in Sarajevo a *mélange* of races, creeds, and languages, which constitutes a formidable barrier to foreigners who wish to investigate the country and its people from a historical point of view.

In the afternoon the members were conducted through some of the Government factories and technical schools, instituted for the instruction of the rising generation. First in importance among them may be mentioned *Das Kunstgewerbliche-Atelier*, where apprentices receive technical instruction, under qualified masters, in various kinds of decorative metal-work, such as damaskeening, engraving, and embossing designs, &c. Some of the pupils live in the establishment, which for this purpose contains, besides the workshops, a school-room, dining-room, and sleeping accommodation for 50 boys. For the sale of the articles manufactured in the establishment there is a fine magazine in the town, which is kept well stocked with a variety of objects decorated with designs, chiefly of an oriental character. Similar schools are being established in some of the provincial towns, as at Foča and Livno.

We next visited the *Atelier für Teppichweberei*, where carpets after various oriental patterns — Persian and

Smyrna—and some home designs, are manufactured under the guidance of experienced workmen. Associated with this factory are departments for spinning and dyeing the wool. A considerable amount of weaving in fine silks and cloths is done in the harems, and women thus occupied are supplied by Government with the prepared yarn at a less cost than they could spin it for themselves.

One of the most attractive of these Government institutions is the *Tabak-Fabrik*, a group of buildings among the first seen on the right hand as we enter the town from the railway station. Here are storage magazines and a number of workshops for the manufacture of cigars and cigarettes. This factory has greatly stimulated the growth of tobacco throughout the country, as the farmer is sure of a ready sale for the raw material. Indeed, it has done good in many ways: not only is employment given to some hundreds of girls, but Government realises a considerable income from the monopoly, and so indirectly helps to relieve the pockets of the taxpayers.

The most exciting of the field excursions was a visit to the high plateau of Glasinac, situated among the mountains some sixteen miles to the east of Sarajevo, and entailing two days' hard work with carriages and riding-ponies. The party, numbering twenty-five persons, including two ladies, started at 6 A.M. in ten carriages. The local gentlemen distributed themselves judiciously among the foreign members, and thus kept the latter *au courant* with the features of the country

as they passed along. We had the company of Mr Fiala, one of the Museum experts in botany and archæology, under whose superintendence the prehistoric tumuli at Glasinac were then being investigated. Intimately acquainted with the language of the country people and with the objects of interest on the way, our delightful companion was a complete encyclopædia of information on every subject that cropped up. On the previous day and night a violent thunderstorm, accompanied with much rain, had passed over Sarajevo, but this morning the leaden sky was broken up into passing clouds and the air was fresh and invigorating. Forecasts of the weather by local meteorologists were also pronounced to be favourable; and as to the generally hilarious mood of this polyglot party, there could be no dubiety.

Leaving the town by the Miljačka gorge, under the deep shadow of the castle rock, we soon began to climb the mountains by an excellent road which winds over the heights of Han Bulog, on the north side of the river. A considerable portion of this ascent was made on foot, which was rather an advantage, as it gave the company a better opportunity of scanning the wild scenery around them. After a time we again came into the valley of the Miljačka, and on emerging from it had a splendid view of the white-crested ridge of the Romanja Planina, which, rising like a giant wall far above the dark pine-forests, stretched away into the undefinable distance. A halt of half an hour was made at the village of Mokro, where, in consequence of the

keen morning air, a second breakfast of tea, coffee, and bread was well patronised. The village loungers, wondering what was in progress by such a cavalcade, crowded around us; and in the hands of one of them I had an opportunity of examining the double whistle, a favourite musical instrument among the country people. It has the advantage over the single-tubed instrument of increasing the number of notes by supplying seven holes, four on the right tube and three on the left. The road over the Romanja Planina begins to ascend at Mokro, and, after a series of wide serpentine bends, enters the forest and soon reaches a pass 1376^m. in height. As we were about half-way up there appeared to be great commotion among the atmospheric elements congregating on the higher summits, and it looked as if a storm were brewing; but after a few drops of rain the clouds mysteriously vanished, and for the rest of the journey there was no occasion to mention the word weather except by way of commendation. The wilds of the Romanja have always been the headquarters of the robber-world; but robbery, though once the normal industry of the people of Mokro, no longer flourishes among them except in the legendary 'Cycle of Novak,' a complete set of robber-songs. Almost at the highest point there is a substantially-built house and a shop well stocked with the knick-knacks and articles used by the country people. Here Dr von Fellenberg fell in with a *tambourica*, which he at once purchased and slung over his shoulders. This is an instrument not unlike a guitar, with a short oval body, a long neck,

and four strings (Fig. 15). By-and-by, through an opening in the forest, we came in sight of a wide expanse of bare uplands known as the "Hochebene Glasinac." But it presented no striking feature, beyond the open view and girdle of hazy mountains in the distance. The most conspicuous object was a large white many-windowed building, whose walls, sparkling



Fig. 15.—A NATIVE MUSICIAN, MOKRO.

under a brilliant sunshine, at once caught the eye. It was the military *Kaserne* of Podromanja—our destined quarters for the night—which was reached shortly after mid-day.

The hospitality extended to us here was on a princely scale, and with little delay we sat down to a sumptuous dinner, served by the soldiers in excellent style. After-

wards we made a tour of investigation in the neighbourhood, visiting in succession a Bogomile cemetery, a group of prehistoric tumuli, a hill-fort, and the cave of Megara.

These hill-forts are called *Wallburgen* or *Ringwälle*, and the one visited by the party gets the name *Hreljingrad am Plješ*. As it is situated some distance from the carriage-road, the country people assembled at Han Sarenac with some thirty riding-ponies to convey the party thither. In returning to the carriages some of the members, unaccustomed to rough riding, lingered far behind, and so a few of us, *pour passer le temps*, wished to enter one of the neighbouring cottages to see its interior. The occupier of the one selected was a young woman who, like all her neighbours, stood at the door wondering what so many strangers were doing in the district. She had a distaff stuck on the left shoulder and a spindle in her hand; but when asked to give an exhibition of her skill she looked shy, and appeared highly indignant when one of the party offered her money. Mr Hörmann, however, then came forward and explained the object of our visit; whereupon she became more amiable, and graciously welcomed us into the cottage. Two wooden stools of primitive construction, a small chest in a corner, some bowls and crockery on a wooden shelf, a salt-box and a baking-tray—the latter two hanging on the wall—were all the furniture to be seen. In the smoky rafters was a large dome-shaped basket for keeping grain. The hearth was a semi-disc of hardened clay, raised a few

inches above the clay flooring. On it were some glowing embers, and suspended over them by an iron crook was a heavy plate of iron, about eighteen inches in diameter, and shaped like the segment of a sphere having the hollow side downwards. I had never seen an apparatus* like this in rural life before, but its object was apparent. When lowered so as to nearly cover the



Fig. 16.—A COTTAGE AT MOKRO.

fire, it concentrated the heat on anything placed on the embers for the purpose of being cooked. There was a second apartment, entered by a door in the mid-wall, but it contained no movable furniture—a divan placed round the wall and heap of wool in the middle of the floor being all I could see. Nor did this bareness of furniture appear exceptional, as it was much the same in other

cottages whenever I had an opportunity of getting a peep of their interior (Fig. 16).

The Megarahöhle is the entrance, in continuation of a former water-course, to one of the mysterious underground passages which are so frequently met with in these rocky regions, especially in Dalmatia and Herzegovina (Fig. 17). The Bogomile cemetery and *Burgwille* will be subsequently noticed.



Fig. 17.—MEGARAHÖHLE, GLASINAC.

Before we got back to the *Kaserne* it became bitterly cold, and we were glad to get under shelter. Here the party was regaled with another sumptuous meal, under the presidency of the district governor, Gésa von Barcsay, who paid us every attention.

The *Kaserne* generally contains a garrison of 250 men, but the soldiers were then at drill in a different part of the country, and only fifteen men, under Lieutenant Novaček, remained to take charge of the place; hence there was abundant sleeping accommodation for the party notwithstanding that it numbered some thirty persons.

Next morning at dawn we were again in our carriages, and, in a thick cold mist, the muffled-up cavalcade wended its way to the prehistoric cemetery of Rusanovići, near Han Šenica, where Mr Fiala and his trained workmen were making preparatory excavations in three selected tumuli, leaving the actual burials undisturbed until the arrival of the members. A couple of officers on horse-back accompanied the party by way of a friendly escort, which by-and-by became increased by some thirty or forty gaily-dressed peasants, mounted on the ponies intended to carry the visitors over the final stages of the journey. A few hundred yards from the site of the excavations a deputation of the surrounding inhabitants, at the head of whom were the *Bürgermeister* of Rogatica and five or six other local authorities in their official costumes, was waiting to welcome the strangers. In a short speech the *Bürgermeister* expressed satisfaction that the prehistoric remains of this romantic district were considered so important as to induce learned gentlemen to come from distant lands to see them. After Professor Virchow had suitably replied, a gipsy band played some of their plaintive airs, and a number of gaily-dressed girls stepped forward and presented

each member with a bouquet of sweet-smelling flowers, at the same time kissing the hands of the two ladies of the party.

The excavations were so carefully arranged that the merest working with the fingers and a spud was sufficient to expose the interments—an operation in which Montelius, Szombathy, and a few others displayed that



Fig. 18.—EXPLORING A TUMULUS, GLASINAC, AUG. 20, 1894.

nicety of manipulation which can only be acquired by practical experience. Hence there was no time lost in bringing the eagerly-looked-for treasures to light (Fig. 18). One body was that of a female, which had on the bones of each arm a bronze bracelet. On its upper part lay two four-lobed fibulæ, like Fig. 44, and a hollow bead—all of bronze. The bracelets and fibulæ were

ornamented with incised lines and concentric circles. The pins of the fibulæ had been of iron, but of them nothing remained except a little mass of the oxide of that metal at the points of attachment. Among the other grave-goods were a couple of fibulæ of the usual bow-shaped form, a diadem of thin bronze plate, and a peculiarly shaped stone implement. After this interest-



Fig. 19.—ASTONISHED NATIVES, GLASINAC, AUG. 20, 1894.

ing object-lesson in practical archæology, and a hasty view of the situation of some of the other tumuli in this cemetery—said to number over one thousand—the party adjourned to the corner of a plantation, close to where the interview with the deputation took place. Here, within a shady bower constructed of branches and leaves, and richly carpeted, dinner was served *al fresco*

—the manner of sitting being *sur le tapis*. Meantime, to the strains of a variety of musical instruments, the peasants, who had congregated in great numbers, dressed in their holiday costumes, entertained the company by dancing the *Kolo* and other national dances, the whole culminating in a scene of singular interest and novelty to the eyes of Western Europeans (Figs. 19 and 20).



Fig. 20.—IN HOLIDAY COSTUME, GLASINAC, AUG. 20, 1894.

While the excavations were going on an amusing incident occurred. Among the country visitors was a dwarf of the name of Ivan Dobrača, a perfect model of symmetry and manliness, though only 3 feet 8 inches in height (Fig. 21). When Professor Virchow's attention was directed to the little man—for he was truly a

man, being fifty-six years of age—he expressed a wish to examine him for anthropological purposes. To this proposal Ivan readily consented, and so he and the Professor, along with Herr Hörmann, who acted as interpreter, became a rival attraction to the bystanders. The Professor carefully inspected his head, limbs, throat, eyes, hair, &c., jotting down the result in a note-book.



Fig. 21.—IVAN DOBRAČA, GLASINAC.

All this personal distinction made Ivan Dobrača feel very proud, and he became, especially in the eyes of his country friends, the hero of the day. When the inspection was over, by way of showing his delight, he suddenly turned topsy-turvy, and, for nearly a minute, stood on his head and hands, wildly kicking his little legs in the air.

The country people seemed delighted to rub shoulders

with the *savants*, and the only drawback to much intercourse was the want of a mutually intelligible language. However, when goodwill really exists, a smiling face and a few impromptu signs go a long way towards the removal of linguistic and other social barriers. While coming down the hill to the place of rendezvous for dinner, I got alongside a handsome young fellow, whose beaming face left no doubt that behind it there was a fund of good nature. By way of showing friendliness, I interested him by inspecting the contents of his leathern girdle, in which, among other things, was a flint-lock pistol. The result was that I purchased the pistol at his own price. As soon as the bargain was completed he discharged the weapon and handed it to me; we then cordially shook hands, and for the rest of the day continued on the most friendly terms. I was afterwards introduced to the young man's mother and sweetheart, the latter being one of the most conspicuous among the *danseuses*. By way of return for this compliment I introduced my wife to the whole family—a ceremony which had to be performed in accordance with the pantomimic rites of pre-linguistic times.

But there was not much time to linger among these good-natured people, as Sarajevo had to be reached that night; and so we reluctantly left the festive scene, and bade farewell to our most hospitable friends. The return journey was over the same route, and by the time we crossed the Romanja range of mountains and reached Mokro the shades of evening were fast gathering around. Here we changed horses, a fresh relay of

which had been sent the night before from Sarajevo. From this the descent was almost continuous, but the narrowness of the road entailed on the coachmen the utmost caution in driving; and the lights only intensified the effect of the awe-inspiring precipices and defiles through which we passed. As if to increase these difficulties, we encountered no less than four waggons, with three and sometimes four horses abreast, thus occupying almost the entire breadth of the road; and it was with much difficulty and no small danger that we passed them. The fellows had prudently taken advantage of the coolness of the night to mount these steep defiles; but in doing this they violated the rules of the road by not showing lights. We reached Sarajevo about 10 P.M., having travelled something like 100 miles in forty hours, and it was with a sense of relief we heard of the arrival of the last carriage, which, though half an hour late, fortunately met with no serious mishap.

On Tuesday the members again met to continue their archæological discussions, the problems on this occasion having reference to the tumuli and *Wallburgen* of Glasinac.¹

In the evening the Mayor gave a farewell banquet at his private residence in honour of the Congress, which, being served *à la Turque*, greatly amused the foreign members, most of whom were unacquainted with the primeval simplicity which still governs prandial etiquette in oriental countries. On entering the court the guests

¹ See chap. v.

were received by the host under a blaze of torchlight. The court was in reality a small garden, interspersed with grassy plots and a few trees. The trees and surrounding wall were tastefully decorated with Chinese lanterns in various colours, which at the outset gave the scene a fairy-like appearance. At one side was a small richly-carpeted summer-house, and near it a table on which were laid out a few tall glasses of beer and cigarettes. For some time the company was highly entertained by the spirited strains of a gipsy band conducted by an amusing *Spassmacher*, who wore a long conical hat made of skins, the extremity terminating in a bushy tail. This comically got-up wag imitated with vocal sounds the different noises to be heard on the battle-field—the roar of cannon, the hissing sound of balls passing through the air, the rattle of musketry, &c. In about half an hour a servant came round with a large silver dish and a jug of scented water for the guests to dip their fingers in, and while this was being done he threw over the shoulders of each a *serviette* beautifully embroidered at both ends. The gentlemen then entered the house and, having passed across a small court paved with pebbles, ascended to the dining-room. At the top of the stair there was a roomy lobby fitted up for coats and hats. The dining-room contained three circular tables, made by placing three large metal trays on movable supports, and around each were placed ten chairs. There was no prearranged or ceremonious order for taking places, so we sat down anywhere. Each guest had before him an ordinary three-pronged metal

fork, a wooden spoon of simple workmanship, and a beer-goblet. Half-way between the centre and margin of the tray there was a circle of small plates containing pickles, cheese, and other condiments. Beer was handed round at once, while a large tureen of thick soup was being placed on the centre of the table. From this common dish each guest helped himself, a process which required both a long and a steady arm, and brought vividly to my mind the true force of the adage, "There is many a slip betwixt the cup and the lip." The next course was the fore-half of a sheep, beautifully roasted, and stuffed with rice. How to get a piece of this tempting viand with the implements at our disposal—there being no knife of any sort on the table—was a problem not so easily solved. A fork and a wooden spoon, even when supplemented by one's fingers, would not avail much. I took hold of one of the leg-bones which projected over the dish before me, and a gentleman opposite caught the other, and in this way we tried to tear the roast asunder; but our combined efforts were futile, and all we did was to expose the smoking rice in its interior. Whereupon one of the guests, not a member of Congress, but evidently more versed in the practical anatomy of the sheep than either of us, took the leg-bone out of my hand and, by a few rapid twists, quickly separated it at the knuckle-joint. This skilfully performed operation afforded an opening for several fingers, and I saw some substantial morsels being abstracted. By this time champagne-glasses had taken the place of the beer-goblets, and

during the rest of the dinner the sparkling beverage went merrily round. Following the *pièce de résistance* came eleven other courses, which I will not attempt to describe, as, I am sorry to say, I could not read the *menu*, though written in a couple of languages—viz., Serbo-Croatian and Turkish. Generally speaking, they consisted of various kinds of jellies, sweet cakes, and small gourds stuffed with mincemeat. The last course before dessert was a dish of quails, served with a bowl of what looked like “curds and cream.”

As soon as the champagne-glasses were filled the host rose and dedicated a bumper to his foreign guests, whom he warmly welcomed to his table. The speech was translated into German by State-Counsellor Hörmann, the learned director of the Museum. After this each succeeding course was interlarded by a speech from one or other of the guests; nor was the polyglot composition of the company exhausted until speeches were made in the following nine languages—viz., French, Swedish, Turkish, Hungarian, English, Italian, Albanian, German, and Latin. But probably not a single person present understood them all.

Meantime the comic *Spassmacher* and his band of musicians had transferred themselves to a corner near the door of the dining-room, and played, at suitable intervals, selections of their native airs. Before rising from dinner, the silver basin and the jug with scented water again went round—this time a by no means unnecessary ceremony—and the embroidered towels were gathered up. The company then adjourned to

an adjacent room, opening off the dining-room, where cigarettes and handsomely mounted narghiles and chibouks were handed round. Coffee was then served, and the conversation became general. By-and-by a young pale-looking lad was ushered in, who repeated, or rather sang, with a melancholy intonation, a portion of the Koran. Before parting, a few of the younger guests—among whom was young Fritz von Kállay—gave an exposition of a Hungarian dance in the dining-room, which by this time had been cleared of its temporised tables. Altogether it was a most enjoyable entertainment, and a fitting conclusion to a week of surprises.

The most unaccountable feature of this ceremonial dinner was, undoubtedly, the absence of any kind of knife—a fact which some people may attribute to a want of taste and refinement. But this is by no means a legitimate conclusion. For an explanation of the continuance of the custom, we must rather look to the conservatism of the Mohammedan religion. The Koran defines not only the principles of religion and moral conduct, but also those which regulate the entire social organisation in its commercial, military, and legal aspects. But the precepts in this book can only refer to customs prevalent in Arabia about the beginning of the seventh century—a time long prior to the introduction of the refined accessories of the modern dinner-table into the social life of Western Europe. What struck me as most curious was the fact that we were furnished with a fork and not a knife, as the latter is of much

greater antiquity than the former. According to Lacroix (*Arts in the Middle Ages*, p. 13), the fork is only mentioned in history for the first time in 1379, so that up to that date there is no evidence to show that the fingers in eating had been superseded by any artificial implement. On the other hand, the knife is one of the earliest tools invented by man, and goes back to the very origin of civilisation. Savage man always carries his knife on his person; and, indeed, it is not so long ago since guests were in the habit of carrying their own knives and forks to public feasts—a custom which no doubt is a survival from prehistoric times. Nor is this theory without some historical evidence in support of it. Posidonius, a Stoic philosopher, who wrote about 100 years B.C., in speaking of the Celts (quoted by Lacroix in his above-mentioned work, p. 13) says:—

They eat in a very slovenly manner, and seize with their hands, like lions with their claws, whole quarters of meat, which they tear in pieces with their teeth. If they find a tough morsel, they cut it with a small knife which they always carry in a sheath at their side.

On this passage Lacroix comments as follows:—

Of what were these knives made? Our author does not tell us; but we may assume that they were of flint or of polished stone, like the hatchets and arrow-heads so frequently found where these ancient people dwelt, and which bear testimony to their industry.

The Mohammedan custom of not supplying guests with knives at the dinner-table would appear, there-

fore, to be the mere survival of a custom once universal; and, to be in keeping with the etiquette of these earlier times, the archæologists at Sarajevo ought to have carried their own knives. But considering that the occasion was a banquet to gentlemen specially dealing with the prehistoric remains of the country, would it not have been still more appropriate had the Government lent the requisite number of flint knives out of the 988 specimens (with more to follow)¹ recently transmitted to them as a legacy from their neolithic predecessors at Butmir?

¹ Die Neolithische Station von Butmir, p. 34.

CHAPTER IV.

THE NEOLITHIC STATION OF BUTMIR.

THE archæological discoveries in regard to which the opinion of Congress was especially desired were the following:—

- (1.) The great neolithic station of Butmir.
- (2.) The fortified camp and hut-dwellings at Sobunar (Debelobrdo and Zlatište).
- (3.) The cemeteries and hill-forts (*Burgwille*) distributed over the high plateau of Glasinac.
- (4.) The prehistorico-Romano necropolis at Jezerine.

The facilities and means afforded to the members for coming to a decision in regard to the various materials submitted to them were all that could be desired. Not only had they been shown the entire collections of relics discovered at these respective localities, but also, as regards the first three, they had an opportunity of inspecting the actual conditions and circumstances in which they had been found by having fresh excavations carried out, as far as practicable, in their presence. Two special sederunts were devoted to the considera-

tion of the archæological problems suggested by these great discoveries. The discussions were conducted under the presidency of Professor Virchow, in the presence of a select audience assembled in the large hall of the Government offices. Owing, however, to the want of time, only the questions relating to Butmir and Glasinac were actually discussed in this official way. This chapter will therefore be confined to the controversies and opinions to which the archæological remains from the former locality gave rise.

As mentioned in the previous chapter, the formal discussion on the neolithic station at Butmir was opened by Professor Pigorini, who expressed the opinion that it had been a pile-structure, analogous to the *terramara* deposits so numerous found in the eastern portion of the Po valley. To test this theory he suggested that a trench should be run out beyond the margin of the mound, in order to ascertain if it had been surrounded by a dyke and a ditch, as was almost invariably the case with the *terramara* settlements. In reply to Professor Pigorini's theory, Mr Radimsky, who superintended the excavations on behalf of the Government, gave a lucid and comprehensive statement of the facts he had observed, and the grounds on which he based his opinion that the settlement was not of the nature of a pile-structure. He contended that the huts, to begin with, had been placed on the actual clay lying underneath the relic-bed — which at that time would be the natural surface of the ground — while those subsequently constructed would be placed at

higher levels, gradually rising in the strata in proportion to the age of the settlement and the amount of *débris* which had accumulated in the interval.

I do not consider it advisable to bring into prominence the arguments then advanced for and against these respective opinions, because we have now more precise information in regard to the real points at issue than could be gathered from anything then said, however carefully reported. This additional source of evidence, which has so opportunely come to hand, consists of a magnificently illustrated monograph on the station at Butmir, just issued by the Government. The work is the joint production of Dr Moriz Hoernes, who writes an introduction, and of Radimsky, who describes the excavations and the objects collected in them up to date. To this Professor Schrötter, of Zurich, adds a report on the plant remains.

With regard to what took place at the Congress, I will merely say that the opinion and arguments so ably set forth by Mr Radimsky had the effect of influencing the large majority of the members to adopt his views. This effect was greatly strengthened when, a few days later, it became known that the trench suggested by Professor Pigorini had been executed, with the result that it showed that there had been no circumvallation of the deposits at Butmir either in the form of a dyke or a ditch.¹ It would appear that this result was re-

¹ Professor Pigorini, after returning from Mostar, again visited the excavations, and afterwards wrote to me that he had abandoned the idea that there had been a dyke surrounding the settlement at Butmir. Mr

garded by some of the members as a crucial test to settle the general question at issue. Thus M. Reinach, writing in 'L'Anthropologie,' No. 5, 1894, p. 8, says:—

En continuant les fouilles, en présence de MM. Pigorini et Munro, on découvrit les traces évidentes de plusieurs pilotis, dont l'un était un tronc épais d'environ 0^m. 25; mais les adversaires de la théorie de la terramare firent observer que l'emploi de pieux et de supports en bois, dans la construction des cabanes, ne déterminait pas le caractère de la station. Les cuvettes dessinées dans le sol vierge étaient un indice favorable à l'existence de cabanes établies directement sur le lehm; or, l'hypothèse de M. Pigorini laissait ce détail inexpliqué. Il fut décidé qu'on pousserait une tranchée jusqu'à la limite de la couche archéologique, pour voir si la station se terminait brusquement par une digue ou si les couches à débris s'abaissaient progressivement vers le sol vierge. Les travaux accomplis à cet effet montrèrent que cette seconde hypothèse était exacte et que la coupe horizontale présentait l'aspect d'un tertre surbaissé. Il semblait donc, sous réserve de découvertes ultérieures, que la manière de voir de MM. Pigorini et Munro devait être abandonnée.

As, however, neither a dyke nor an external ditch is an essential part of a pile-structure (there being more pile-structures without such circumvallations than with them), this phase of the argument is, in my opinion, of little importance. No doubt the existence

Radimsky also wrote, about the same time, to the effect that Professor Pigorini had now agreed with his views that the settlement had not been a *terramara*, but a *Landansiedelung*. A similar opinion was conveyed to Professor Virchow, who reiterated it a few days later at the Archæological Congress at Innsbruck. It would therefore appear as if I now stood absolutely alone among the members of the Sarajevo Congress in supporting the theory that the station at Butmir was a veritable pile-structure.

of a surrounding dyke, with an external ditch or moat, of gigantic proportions, was a feature of these structures in Italy; but it was a local peculiarity, acquired at a later period in the history of the development of the primitive pile-structures, and may probably be regarded as the primary germ of the protective walls of the Italian towns of later times. Had a dyke been found at Butmir, it would have been a discovery of the highest significance, as showing some intimate relationship between its founders and the *Terramaricoli* of the Po valley. In the *Terp-mounds* of Holland, the surrounding wall of mud was a *sine quâ non*, essentially constructed as a bulwark against the inroads of the tides. But no dykes of earth were, or could be, used in lakes and marshes. The application of the word *terramara* to the discovery at Butmir was perhaps somewhat unfortunate and misleading, inasmuch as it seemed to convey the idea that it was identical both in structure and chronology with its analogues in North Italy. From this point of view the President ruled that the existence or non-existence of piles in Butmir was absolutely of no importance: "Es ist daher absolut ohne Interesse, ob wir Pfähle finden und wenn wir sie finden, so wäre hiedurch noch nichts für die Chronologie geschaffen." He also pointed out that the *Burgwälle* of North Germany had often underneath them pile-structures, which could not therefore be older than the incoming of the Slavs.

No one has written in a stronger strain in support of Mr Radimsky's opinion than Mr Szombathy. He has

ventured to assert that the six or seven holes of the piles found in the clay belonged to the ground huts, of which the hollows in the clay were the floors. Here are his words :—

“Mit Recht hat Virchow vorher betont, dass der Nachweis von Pfählen überhaupt nichts für Pigorini's Auffassung beweise, da diese doch auch zur Errichtung primitiver Häuser gedient haben konnten. Die Anordnung unserer sieben Pfähle zeigte auch deutlich ihre Zugehörigkeit zu den Wohngruben. Munro erkannte nun auch, dass die Ablagerungen nicht horizontal geschichtet sind und trat der allgemeinen Ansicht bei.”¹

Now that the entire facts are before the scientific world by the publication of the above-named monograph, it becomes more imperative on me to vindicate the correctness of my own opinion than to enter upon a long disquisition of the views of my opponents. The controversial matter is clear and precise, and the only issue is Yea or Nay.

As a preliminary, let me just say that I accept the entire body of facts as stated by Mr Radimsky in his report. Indeed it is a singularly clear and lucid statement, and bears unmistakable evidence of being the production of an impartial observer. It is only as regards the interpretation put upon the facts that I venture to differ from him and the other members of Congress. Let us, therefore, first of all endeavour to get a clear idea of the nature and details of this discovery.

From a glance at the accompanying plan (Fig. 22)

¹ Mitt. der Anthrop. Gesellschaft in Wien, Band xiv., Sitz., p. 208.

it will be seen that the outline of the settlement is an irregular oval, measuring 185^{m.} in length and 155^{m.}

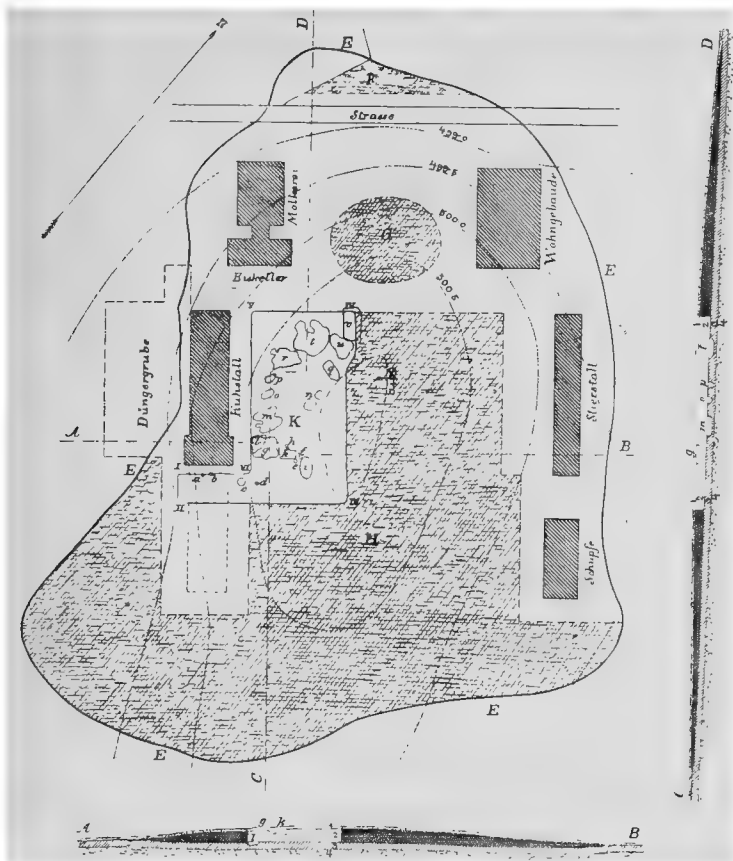


Fig. 22.—PLAN AND SECTIONS OF THE PREHISTORIC STATION OF BUTMIR.

in its greatest breadth. Its superficial area is 19,170^{m.²} (about 5 acres), and its average height 2^{m.} above the surrounding plain. Of this area 1356^{m.²} have been

excavated, and 9280^{m.2} still remain untouched but capable of being excavated—the rest being occupied with buildings, roads, &c.

A section from above downwards shows the following separate beds :—

- (1.) A superficial humus, 30 to 40^{cm.} in depth, similar to the ordinary clayey soil on the surrounding cultivated fields.
- (2.) A dark bed of charcoal, ashes, clay, mould, &c., containing pottery, stone implements, and other industrial remains, uniformly distributed throughout the entire mass (*Die zahlreichen Thon- und Steinartefacte sind in der Culturschichte ihrer ganzen Höhe nach vertheilt*). Its depth varies from 110 to 140^{cm.}, but at the margin it thins off.
- (3.) Underneath this lies a deposit of reddish-brown clay of a fine adhesive quality, having a thickness of 90 to 110^{cm.} As already observed (p. 60), there was no clear line of demarcation between it and the relic-bed, as bits of charcoal, and, according to Mr Radimsky, portions of burnt clay, were sometimes found embedded in its upper part (*zuweilen auch einzelne Stückchen gebrannten Lehm*). Otherwise this clay is a homogeneous compact mass, which must have been deposited prior to the occupancy of the locality.

The excavations were conducted by a body of workmen who first removed the upper layer of soil, and then

threw the contents of the relic-bed a few yards behind them, where they were subjected to further inspection. Thus they always worked in face of a perpendicular section of the retreating relic-bed, as shown in the illustration in the Frontispiece. The exact position of the more important finds was carefully noted on a plan.

At an early stage of the excavations certain trough-shaped hollows were encountered in the underlying clay which every one acknowledged to have been the work of man, and consequently attracted much attention, as they must have been made before the relic-bearing *débris* commenced to accumulate above them. The sides of these hollows sloped at an angle of 45° , and the centres were lower than the margins. The depth varied from 40 to 80^{cm}. They were all filled with stuff similar to that in the relic-bed, and it had been frequently remarked that the relics were most numerous within their boundaries. During the progress of the excavations carried on in 1893, twelve such hollows were met with, all of which have been carefully measured and marked on the plan. Moreover, five are illustrated with plans and sections on a larger scale. A short description of a few of them will suffice to give an idea of the kind of evidence they supply; and for this purpose I select those numbered in the report 1, 2, 4, 8, 10, and 11 (*c*, *i*, *m*, *p*, *r* and *t* on the plan), the last five being selected because they are accompanied with enlarged ground plans, so as to give a better idea of their various forms and sizes:—

No. 1 (*c*)—round, diameter 2.5^m, depth 40^{cm}; con-

tained stone implements (six knives, one broken spear-point, one half-finished arrow-head, and seven scrapers), some fragments of pottery, and three portions of bone. At the east side and lying on the clay flooring was a roundish fire-place, 50^{cm.} in diameter, consisting of a layer of ashes interspersed with pieces of charcoal.

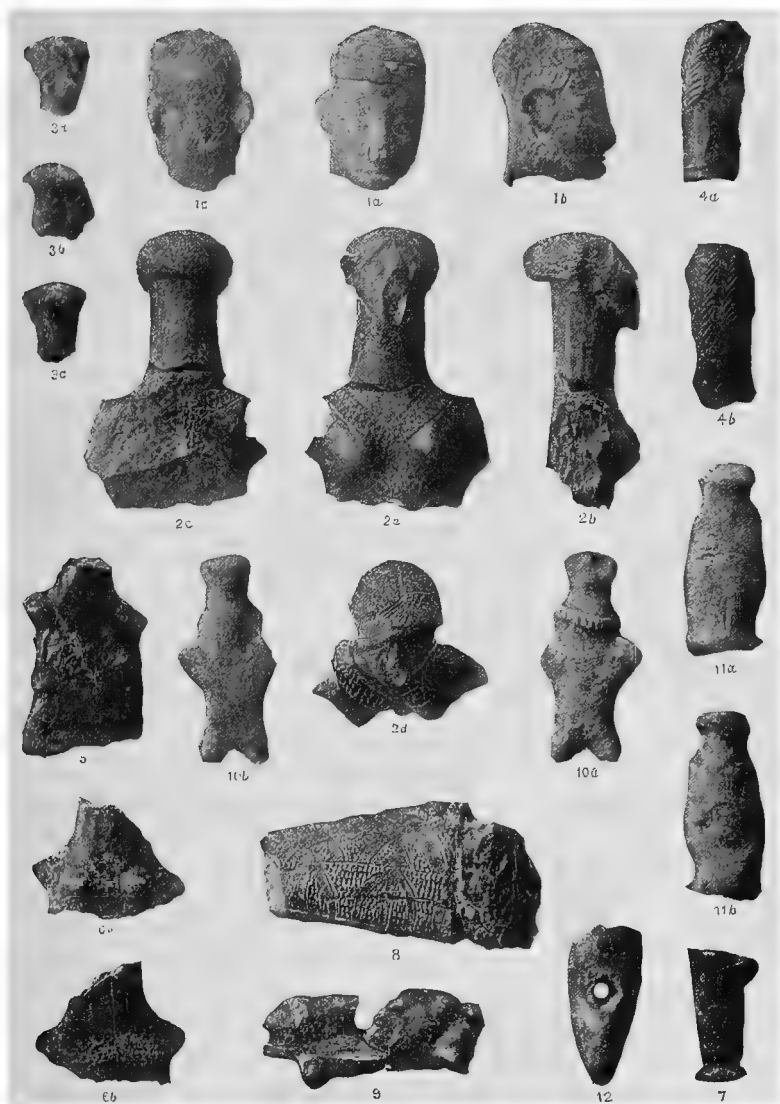
No. 2 (*i*)—oval, diameters 4.5^{m.} and 3.2^{m.}, depth 80^{cm.}; contained fragments of pottery, flint flakes, and an arrow-head of jasper.

No. 4 (*m*)—irregularly shaped, sides 5.5^{m.} and 4^{m.}, depth 50^{cm.}. Projecting from the south side was an attached portion 150 by 70^{cm.}, and 26^{cm.} in depth. In this hollow was found lying on the clay the figure of red terra-cotta represented by No. 1, Plate XIII. Among the other objects from this area are some flint implements, two sharpening-stones, a hemispherical polisher, a round red-clay weight, some pottery, and the trunk portion of a second rude human figure.

No. 8 (*p*)—oval, diameters 1.8^{m.} and 2.6^{m.}, depth 60^{cm.}. Had two roundish projections, depth 34^{cm.}, and contained a number of worked objects.

No. 10 (*r*)—irregularly shaped; greatest diameter 8^{m.}, and depth 35^{cm.}. Contained a quantity of the usual relics, including five unfinished stone implements along with a chipping-stone (*Schlagstein*) lying together.

No. 11 (*t*)—roundish form, distinguished above all



THE IDOLS OF BUTMIR.

others for its size, being 9^m. in average diameter. The floor was uneven, being 60^{cm}. in depth at its east and only 35^{cm}. at its west side. It had two projections (*Ausbuchtungen*) on its north-west side (the two far-off hollows seen in the frontispiece). The dark female figure represented by No. 2, Plate XIII., was found within this area, first the head lying on the clay, and subsequently, about one yard in horizontal distance, the body portion turned up in the stuff some 20^{cm}. above the clay. Among other objects found here were a reddish clay figure (*Ibid.*, No. 10), and the hand of a black male figure (*Ibid.*, No. 4), both lying on the clay-bed; also the body portion of another black figure, some 10^{cm}. above the clay flooring (*Ibid.*, No. 8). Besides these figurines were found a clay model of a perforated stone hammer, four mealing stones, some nuclei, and a quantity of other relics.

Mr Radimsky then goes on to describe various other details in regard to the settlement, which I consider the most valuable part of his instructive report. He observes that neither within these above-described hollows nor at their margins were found aggregations of burnt clay casts of the woodwork which formed the walls of the huts, as was the case in the upper layers of the relic-bed. But there were, at all levels, portions of burnt clay met with which might have been fragments of hearths. He concludes from this that none of these twelve original huts had been destroyed by fire. On

the other hand, he found, at various levels higher up in the relic-bed, remains of huts of a more recent date, consisting of horizontal beds of clay, sometimes burnt and sometimes unburnt, together with fragments of the clay plaster with which their wooden walls had been covered, and which, having been burnt in the course of a conflagration, retained the forms of the wood used in their construction. Such remains were observed particularly at three places marked *g*, *k*, and *v* on the plan.

At the point *g* there was a layer of burnt clay 6^m. long, 5^m. broad, and 25^{cm}. thick, along with a quantity of clay wall-castings. It lay on the top of the relic-bed, the highest point being only 30^{cm}. below the surface of the grass-field. Both above and below this burnt layer, as well as among the portions of the wall-castings (*Wandbewurfstückchen*), were found the following worked objects in stone—viz., 13 complete and 12 broken axes and chisels, 1 unfinished chisel, 3 broken but subsequently utilised axes, 1 knife fragment, and a number of nuclei and refuse flakes; also fragments of pottery.

East of this, but somewhat deeper in the relic-bed, at the point marked *k*, there was another layer of burnt clay, together with an aggregation of similar wall-castings, measuring 4.2^m. in length, 3.2^m. in breadth, and 20^{cm}. in thickness, which reached half-way down the relic-bed. Here also a quantity of relics was collected—viz., 12 knives, an arrow-head, 3 scrapers, 2 unfinished chisels, 2 polishers, some nuclei

and chips; also fragments of pottery, 11 red-clay weights (one star-shaped, represented on fig. 23), and 6 fragments of bone.

The third place where such remains were exposed was in the upper half of the relic-bed. Part of this

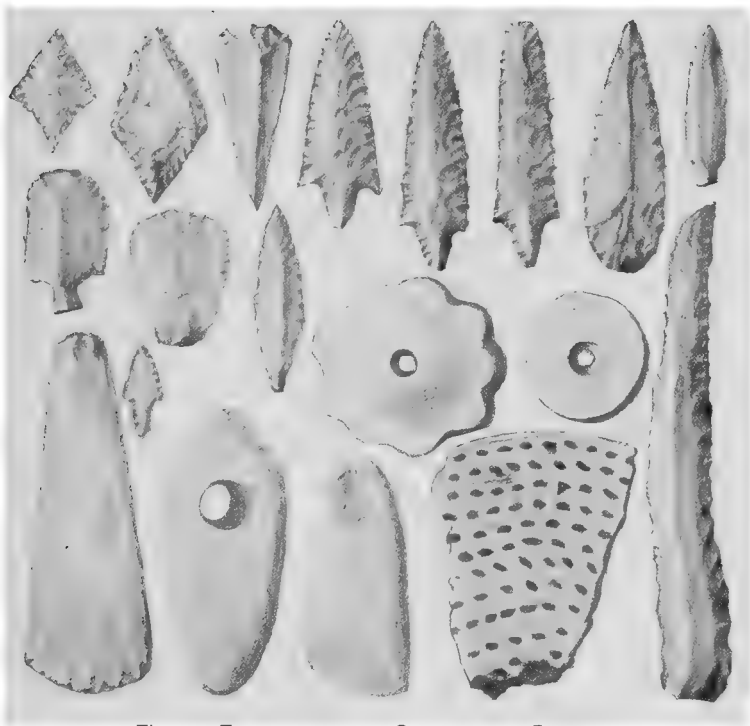


Fig. 23.—FLINT AND OTHER OBJECTS FROM BUTMIR.

burnt flooring lay under a roadway, and so the whole of it could not be uncovered, but so far as this was done it measured 7.3^m. in length and 5^m. in breadth. A peculiarity of this flooring was that its thickness varied

very much, reaching in some parts to 46^{cm.} Besides the usual relics, there is to be noted here a bed of ashes and charcoal, 10^{cm.} thick and 70^{cm.} in diameter, from among which some carbonised grains of corn were picked up.

It would appear that all these huts had been destroyed by fire, and their consequently preserved wall-castings showed impressions of round timbers, both slender and stout, of which Mr Radimsky gives numerous figures. One of his illustrations shows a cross impression indicating, according to him, the mortise of one beam with another. These castings are precisely similar to those found on the sites of the Swiss lake-dwellings so well known to *lacustreurs*.

In addition to these structural details and relics, Mr Radimsky marks on the plan some points outside the supposed hut areas where important relics were found.

At the point *a*, 80^{cm.} under the surface of the field, the workmen came upon sixty-five perforated clay weights of reddish colour arranged in two circular rows. They are round and nearly of uniform size, their diameters being within 5.5 and 6^{cm.}, and their height within 3 and 4^{cm.} One only, which lay in the middle, was exceptionally large, measuring 9.5^{cm.} in diameter and 4.5^{cm.} in height. Our author points out that they are very similar to the net-weights he had seen used by the people of Bihac, and justly, I think, comes to the conclusion that a net with its weights attached had been deposited at

the spot in question, the stone-sinkers now only remaining, the rest having completely disappeared by decomposition.

At *b*, *e*, and *f*, grains of charred corn were picked up from among some charcoal at depths varying from 110 to 170^{cm}.

At *d* two clay figurines lay close to each other at a depth of 180^{cm}, and at *h*, near the hut remains marked *k*, at a depth of 50^{cm}, were found the ornamented weight

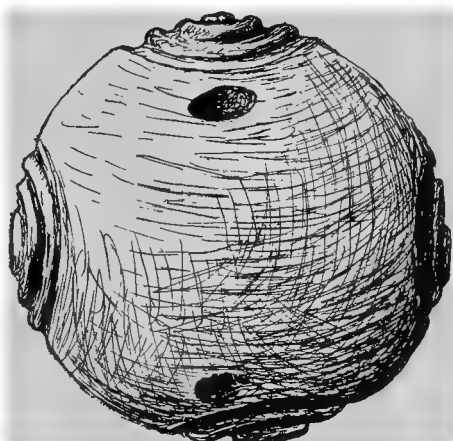


Fig. 24.—A GLOBULAR WEIGHT OF BURNT CLAY ($\frac{1}{2}$).

(Fig. 24) and other twenty-seven smaller ones of red clay, probably the weights belonging to a net.

Summary of the Industrial Remains.

In attempting to give some general idea of the industrial remains collected in the course of the investigations during the year 1893, I must necessarily be very brief. Those who wish to have a more intimate knowledge of the civilisation under which the neolithic people of Butmir lived, must either visit the locality or consult the folio volume now published. It con-

tains, besides plans, sections, &c., 85 illustrations in the text, and 20 coloured plates beautifully executed and representing over 600 objects.

The relics comprise a large assortment of objects, chiefly made of clay and stone, a few animal bones, and some charred grain and seeds.

1. CLAY OBJECTS.

The objects made of clay consist of small human figurines or idols, one quadrupedal form, dishes whole or broken, weights, spindle-whorls, &c.

The human figures (three whole and eighteen fragments) are all rudely made, with the exception of one—a damaged head of a reddish colour, 6^{cm.} high—which shows decided traces of artistic skill (Plate XIII., No. 1). Another of black ware represents the head and shoulders of a carefully-dressed woman (No. 2). It stands 11.5^{cm.} in height and 7.7^{cm.} in breadth, but it is sadly disfigured, the nose and lips being broken off. One of the unbroken figurines (No. 10) shows the human form in a very rudimentary stage, but yet it is made to carry round the neck some kind of massive ornament. It measures 8.7^{cm.} in height, 4.2^{cm.} in breadth, and 2^{cm.} in thickness. One object (No. 9) roughly representing a four-footed animal, was found 20^{cm.} above the floor of the hollow *u*. Its length is 9.2^{cm.}, and height 5.7^{cm.} All the clay figures, with the exception of two, the positions of which were undetermined, were picked up in the lower half of

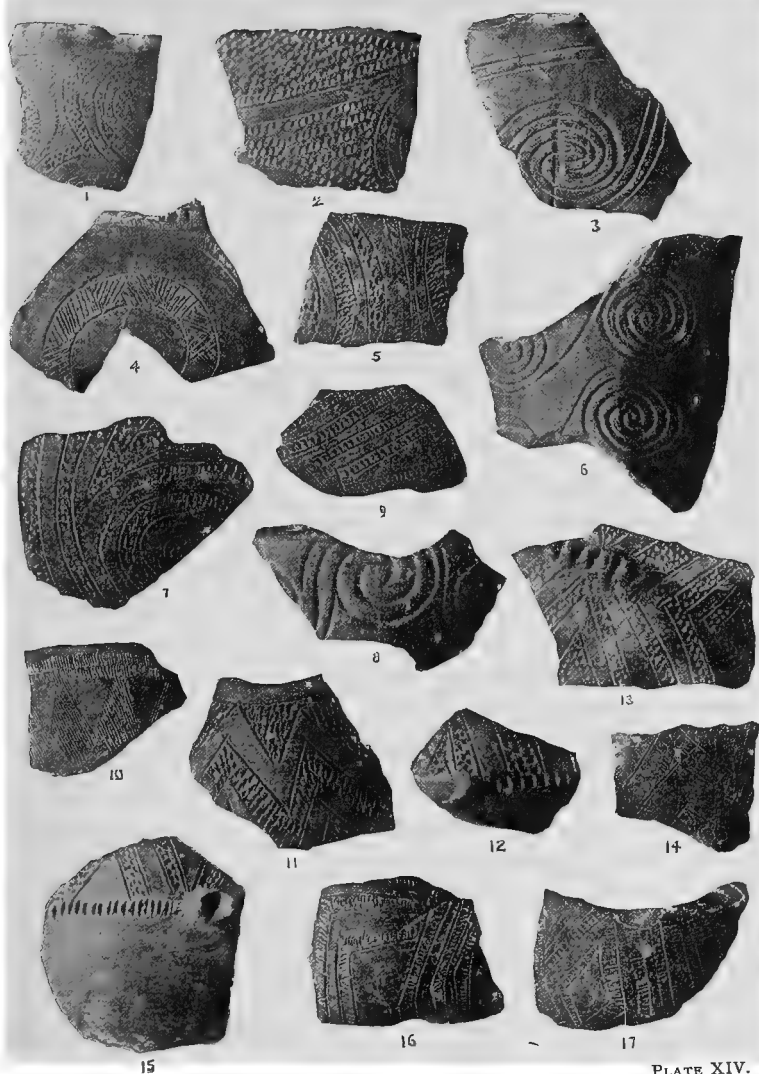


PLATE XIV.

POTTERY FROM BUTMIR.

the relic-bed, many actually lying on the surface of the clay.

Large quantities of broken pottery were found scattered throughout the whole of the relic-bed. They are all hand-made, and often imperfectly burnt. The coarser kind of dishes had thick walls, and simply projections or perforated knobs as handles. A finer quality is of a dark-brown or black colour, and has a polished surface. Other fragments, also of a fine quality of paste, have a reddish colour, but on fracture they show a dark grain. Only seventeen vessels are whole, or could be restored, and they are all small—indeed so much so that Mr Radimsky describes them as toys. Of these, twelve are black and five red, a proportion which generally holds good for the entire collection.

Perforated clay weights, generally of a reddish colour and varying in form and size, are numerous, and among them are a few unperforated balls 6 to 7^{cm.} in diameter. The ornamentation on the pottery consists of impressions made by a stamp on the soft clay, or more frequently of a combination of incised lines, straight or curved, producing geometrical spaces of the greatest variety. Examples of these, as well as of the spiral ornamentation which has attracted so much attention, are given on Plate XIV.

2. STONE OBJECTS.

No description can give a better idea of the stone objects found at Butmir than the following summary

statement drawn up by Mr Radimsky of their number and classification as implements :—

Knife-flakes	988
Small flakes mostly of flint	145
Saws	45
Flakes showing secondary work (4 on both sides)	70
Scrapers	355
Borers, awls, &c.	120
Lance- and spear-heads	54
Tanged arrow-points	302
Untanged arrow-points	87
Arrow- and spear-heads with notches	21
Flakes of broken polished implements	106
Polished axes (used)	173
Polished chisels (used)	92
Portions of axes and chisels	783
Portions of axes (readapted for use)	199
Different implements (unfinished)	621
Perforated hammers (whole 2)	27
Chipping tools (<i>Schlagsteine</i>)	206
Chipping tools made of broken implements	21
Whetstones (315), polishers, &c. (51)	366
Stone slabs, &c.	367
	<hr/>
	5148

The information conveyed by the above summary may be supplemented by the following facts:—

1. The material out of which the majority of the arrow-points are made is jasper, next in order being flint, quartz, and clay-slate.

2. The largest knife-blade is 16^{cm.} long and 2^{cm.} broad; the smallest is 3^{cm.} long and 5^{mm.} broad.

3. The knives and so-called saws show a fine glistening polish along the cutting-edge.

4. No semilunar saws like those so typical of the Scandinavian archæological area have been found at Butmir, though several show a curved cutting-edge.

5. None of the polished stone implements or weapons are of flint.

6. No deer-horn fastenings for stone implements, such as those so abundantly found in the lake-dwellings of Switzerland, have been found at Butmir, although the red-deer is not altogether unrepresented among its animal remains.

7. Only two entire perforated stone hammers have been found among twenty-five broken ones, and not a single core has hitherto been discovered. It would appear, therefore, that the inhabitants did not manufacture their perforated stone implements.

8. On dividing the seventeen different kinds of rock used in the manufacture of these objects into two groups — viz., (1) such as are to be found in the vicinity of Butmir, and (2) such as are to be found only at a distance, but yet on Bosnian soil, Radimsky finds that, with the exception of the twenty-seven perforated hammers, two globular bruisers of Gabbro and a portion of a polished ring also of Gabbro, the whole of the worked implements, tools, &c., come under the first group; also that no unfinished specimen has been classified in the second. Hence, it is argued that the Butmirians manufactured all the objects coming under the former category and imported those belonging to the latter.

3. ANIMAL REMAINS.

No human bones have as yet been found at Butmir. The bones of a few domestic and wild animals were, however, met with in tolerable abundance throughout the relic-bed. In some places they appeared in heaps, but generally so much decayed that only the merest fragments could be preserved. Even the teeth had almost completely decayed, and as for the ordinary bones, they were converted into a soft pulpy mass like rotten wood. Only short bones were found whole, the long ones being always broken. The following is the list of animals identified :—

- Bos taurus*, L. Thirty-nine bones and teeth, including portion of an under jaw.
Bos brachyceros, Rüt. Eleven bones and teeth.
Bos primigenius, Rasse (?). Seven bones.
Bos sp. (?). Three bones.
Sus palustris, Rüt. An upper jaw with teeth.
Capreolus Caprea (?), Gray. A fragment.
Capra or *Ovis*, L. Lower jaw with teeth.
Cervus Elaphus, L. Two horn fragments.

4. VEGETABLE REMAINS.

The following is the result of an elaborate report by Professor Dr C. Schrötter of Zurich on the organic remains submitted to him :—

- Wheat (*Triticum*, cf. *compactum* and *monococcum*, L.)
 Barley (*Hordeum vulgare*, L.)

Lentil (*Ervum Lens*, L., var. *microspermum*).
Brome-grass (*Bromus*, cf. *secalinus*, L.)
Knot-grass (*Polygonum aviculare*, L.)
Crab-apple (*Pyrus Malus*, L.)
Hazel-nut (*Corylus Avellana*, L.)
Silver fir (*Abies pectinata*, D.C.)

*Reasons for believing that the Settlement at Butmir
was a Pile-structure.*

Such are the main results of the recent investigation of the prehistoric settlement at Butmir, as described by Mr Radimsky both at the Congress and in the volume just issued. It now remains for me to state the grounds on which I differ from him and the other members of Congress in the interpretation put upon the facts disclosed, especially as regards the position of the huts. As formerly stated, Mr Radimsky's theory is that the hollows in the underlying clay, which he so carefully describes and figures, were the foundations of the huts first erected by the settlers at Butmir; and he ingeniously argues that the attached portions observed in connection with some of them might have been porches or storehouses, while the larger areas would be the dwelling-room or workshop. In support of this theory he instances two facts—viz., the existence of a fireplace observed in the hollow No. 1, and the collection of five unfinished stone implements found in No. 10, both described at page 98. In order to avoid any suspicion of misinterpretation

of Mr Radimsky's views, it will be as well to give his own words :—

Ich halte diese Gruben für die Reste der ältesten Hütten, welche in Butmir bestanden haben und zum Theil in den Lehmgrund eingesenkt waren. Die Vorstufen bei den Gruben *m*, *p*, und *r*, welche über den Rand derselben hinausreichen, wären dann als Eingänge der Hütten zu denten. Vielleicht dienten auch die eigenthümlichen Ausbuchtungen anderer Gruben als Eingänge, hatten aber eine Stufe aus Holz, welche nun vollständig verschwunden ist. Die grösseren Gruben dürften als Wohn- oder Werkstätten, die kleineren vielleicht als Vorrathsräume gedient haben. Dafür spricht der Umstand, dass auf dem Boden der Grube *c* eine Feuerstelle und auf dem Grube *r* die in fig. 6 abgebildeten, regelmässig geschichteten halbfertigen Geräthe, auf welchem ein Schlagstein lag, gefunden wurden. Die letzteren können in dieser regelmässigen Anordnung unmöglich von der Höhe herabgestürzt sein, sondern müssen schon ursprünglich ihre Lage auf dem Grunde der Grube erhalten haben.¹

In proceeding to show that these hollows (*Gruben*) had nothing whatever to do with the foundation of the huts, let me first of all direct attention to the extraordinary diversity in their form and size. The idea which flashed across my mind when I first glanced at the five plans of the so-called huts was that they were the production of some skilled microscopist who, for some reason or other, had delineated the Protean transformations of a lively specimen of an *Amœba*. When, however, I found it gravely asserted that they are the foundations of hut-dwellings, I certainly expected to find some unusually good evidence

¹ Die Neolithische Station von Butmir, p. 11.

in support of a statement which involves the acceptance of a matter of observation so contrary to archæological experience. My own experience has hitherto taught me to regard prehistoric dwellings as either round or rectangular, or at least near approaches to these figures. We know that forts, and other buildings constructed on hill-tops or on the summit of rocks difficult of access, often assume extremely irregular forms in accordance with the natural contour of the ground.' But whenever prehistoric man abandoned his primary places of abode, such as caves and rock-shelters, and took to building for himself a house in the open, he invariably adopted the simplest plan of construction—viz., either a circle, oval, square, or rectangle, just as the savage still does. I should like to know if any archæologist has seen or heard of any primitive habitations elsewhere that, in point of irregularity, can be paralleled with those so-called huts at Butmir. Had the latter presented any approach to uniformity in size and shape, however *outré* and irrational the design might be, the suggestion that they were hut foundations might be plausible; but as a matter of fact they are the most inconvenient that could be selected. The floors are all uneven, being deeper in the centre than at the margins, except one which is an incline. The construction of huts of such fantastic shapes, as these hollows are shown to be, would entail the expenditure of double the labour and material that would be necessary to erect equally capacious abodes on the ordinary principles. Is there any rational reason why the skilled artisans and potters of Butmir should

construct a village in defiance of the principles of symmetry, uniformity, convenience, and economy? *Prima facie*, and without entering on the merits of the question at all, it appears to me more likely that the theory is false, than that the prehistoric men of Butmir should build such unusual habitations.

The fine clay bed in which these hollows were excavated is a sedimentary deposit, formed in comparatively still water, and there is evidence to show that the conditions under which this had been effected were not completely in abeyance when the settlement was originally founded. I carefully examined the junction between it and the overlying *débris*, but saw no trace of the existence of an intermediate stratum of humus—a stratum which would have been present had the surface of the clay been for any length of time exposed to atmospheric agencies. The conclusion to which I came was that, when the relic-bearing refuse commenced to be thrown down, the deposition of the clay had not entirely ceased, as there were bits of charcoal embedded in it to the depth of a few inches. As mentioned already, Mr Radimsky confirms this observation, and indeed greatly strengthens it by the statement that he found in the same place fragments of burnt clay. These extraneous materials could not have penetrated into the clay without the occasional intervention of water, at least in sufficient quantity to make its surface into a puddle. M. Gabriel de Mortillet expresses the opinion that the site of Butmir was formerly marshy (“*qui était autrefois marécageuse*”—‘*Revue*

Mensuelle,' 1894, p. 381). The more probable supposition is, that when the inhabitants commenced their village the surface of this clay was a mud-bank in a shallow lake, and liable to be covered over with water during a portion of each year. The finding of so many net-sinkers implies the existence, in the near neighbourhood, of a lake or pools of water abounding in fish—conditions which, so far as I have seen, the present rivers and streams of the plain do not readily supply. But whatever the exact hydrographical or topographical circumstances may have been, it is clear that the site of this village would not have been a suitable place for the construction of human abodes either on, or partially beneath, the natural surface.

But from these *primâ facie* objections to Mr Radimsky's theory I now proceed to state others which, in my opinion, are completely antagonistic to it as a workable hypothesis. Any one, who has carefully studied the arrangement of the various contents of the relic-bed, must come to the conclusion that there is no other way of accounting for their stratified disposition than that they had accumulated, in the course of years, by a gradual deposition of materials from a higher level. The whole relic-bed, 5 or 6 feet thick, consists of the usual *debris* of human occupancy, such as ashes, charcoal, clay, food-refuse, &c., arranged in a series of thin beds, superimposed one above the other and spreading over larger or smaller areas, from a few feet to many yards in diameter. These layers are seen on section to recur, overlap, and disappear in an endless

variety of ways—here thinning out to the vanishing point, there thickening or bending in slight wavy undulations, but always retaining a certain degree of horizontality. The perpendicular section specially prepared for exhibition to the members of Congress showed all these features most clearly. It presented a smooth face about 8 feet deep, and fortunately included a portion of one of these hollows with a distinctly defined margin. The stratified arrangement of the *débris* inside, outside, and above this hollow, disclosed in a singularly instructive manner what had actually taken place. The strata inside this depressed area were at first parallel with the floor, then they gradually curved upwards towards the side, and ultimately passed beyond the margin to the outside. Higher up they were seen to cross over the area of the hollow with only a slight curve downwards, and about half-way up the section they became level, and no longer indicated the existence of a depression at all. This arrangement is almost equally well seen in a section which Mr Radimsky gives in his monograph showing one of those hollows with its superincumbent strata (Fig. 25). Now I hold that this very section proves that the underlying hollow could not have been the floor of a hut. Had there been a wall composed of wood and clay resting upon its margin, we would undoubtedly find some traces of it. We must bear in mind that part of Mr Radimsky's theory is that these ground huts had not been destroyed by fire, and that, for this reason, no castings of the hut walls were to be found. But in this case, though the

woodwork would decay, the clay would not, but remained as a barrier between the stratified *débris* outside and inside the supposed hut. Indeed, I have no hesitation in saying that, had there been huts anywhere reposing directly on the clay which had been allowed to fall into decay, there would still remain considerable portions of their walls *in situ*, as was the case at Schussenreid, in precisely analogous circumstances.¹ Is it not remark-

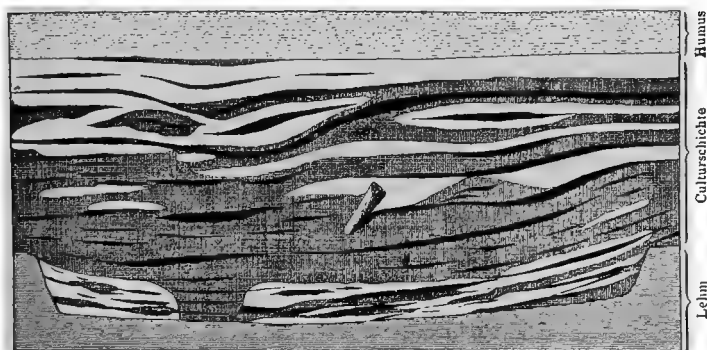


Fig. 25.—SECTION OF RELIC-BED AT BUTMIR SHOWING STRATIFICATION.

able that of these twelve ground huts not a single vestige has come to light? Looking now at Mr Radimsky's section (Fig. 25), note that the strata immediately above the edge of the hollow are seen to be absolutely unbroken, and to run continuously across close to the margin of the hollow, precisely in the same manner as I have described the similar section exposed during the visit of the Congress. As long as the hut remained standing, the accumulating deposits would protect the

¹ See 'Lake-Dwellings of Europe,' p. 508.

lower portion of its walls. In any case, it is impossible to accept the supposition, as at all probable, that the walls of the huts would be so entirely dissipated as to leave no trace behind them.

It is therefore quite evident to me that these hollows existed, just as they are now exposed, prior to the formation of the *débris* that was found lying in beds above them. The stuff in the process of accumulation would increase more rapidly in the hollows than on the more elevated parts around them, and hence, after a time, the gradually rising surface of the relic-bed would become more level. Moreover, broken and castaway articles would have a tendency to roll into these hollows, and thus account for the greater aggregation of objects discovered within them—a fact which has attracted the attention of Mr Radimsky.

I now come to discuss from my point of view the *raison d'être* of these hollows. On all hands it is admitted that they were the work of man, and, of course, preceded the deposition of the refuse lying directly over them. M. Reinach observes, in the extract already given, that while the existence of these hollows was an indication favourable to the idea that the huts had been placed directly on the clay, they remained unexplained on M. Pigorini's hypothesis. But M. Reinach in making this statement could not have devoted much time to the study of the problem, otherwise he would not have overlooked the obvious explanation that they are the pits which supplied the large amount of clay used in the various

arts and industries carried on by the inhabitants. The clay here is of a very fine quality, and admirably well adapted for the manufacture of all kinds of earthenware. It was out of it that the dishes, loom-weights, net-sinkers, spindle-whorls, and even some of their household gods, were manufactured. Nor is it by any means improbable that its excellent quality, so readily procurable, was one of the primary reasons for selecting this locality as the site of the village. But probably the greatest demand for this clay would be to plaster over the roofs and walls of their huts, to lay hearths and floors over the common wooden platform, and to make ovens or bakeries for cooking purposes. The large consumption of this material that went on from time to time, is shown by the frequency with which it was met with in thin layers, and otherwise, throughout the entire mass of the relic-bed. Indeed I may safely assert, that of the various component ingredients of this latter, clay represented the largest. Whence, it may be asked, did all this clay come from, and how came it to be so largely and uniformly distributed throughout the mass? It came to a great extent directly from the huts, which, owing to exposure to sunshine and rain, would be readily pulverised and washed down. When the first nucleus of the settlement was being constructed, the workmen found this most essential material just at hand, probably on the very site on which they were erecting the wooden structures; and it is also probable that after the requisite number of huts was erected, the

clay subsequently required would be taken from outside the habitable area, and, as the community increased, the exhausted pits would be covered over by the extension of the common platform. Hence it may not be strictly accurate to say that all these pits existed prior to the foundation of the settlement. Nor, for the same reason, does it follow that the idols found on the floors of some of the hollows belonged to the earliest founders.

The most powerful argument urged against the theory that the settlement at Butmir was a pile-structure was the complete absence of the actual piles—a fact which equally applies to all woodwork. That, however, wood had been used by its inhabitants may be inferred from many circumstances. First of all may be mentioned the clay castings of the timbers used in the construction of the huts, of which Mr Radimsky gives several illustrations. Also, the round holes detected for the first time in the underlying clay during the visit of the Congress. Then, the perforated stone implements must have had wooden handles; and the arrow-heads must have had wooden shafts, the use of which necessitated bows. The presence of grain and domestic animals implies the use of agricultural implements. Moreover, there can be little doubt that in the manufacture of so many ornamental dishes the potters used a variety of tools of wood, bone, and horn. Yet, of any of these scarcely a fragment has hitherto come to light. All the organic remains, even the bones, teeth, and horns of animals, with few exceptions, have in this singular locality completely

succumbed to the gnawing tooth of time. Almost nothing remains but the objects made of stone and burnt clay—materials which are little affected by the elements of decay. It is as if in this great library of the unwritten records of the Butmirians a whole department had been consumed by a conflagration. But this merely shows that these remains have been subjected to conditions unusually favourable to decomposition.

If natural decay be the correct explanation of the scarcity of organic materials at Butmir, then no argument bearing on the civilisation of its inhabitants or the structure of their dwellings can be based on the peculiarity of their absence. This disposes of the suggestion that Butmir was merely a workshop, as well as of Mr Szombathy's additional argument¹ against the pile-structure theory of the settlement. As this question is of more than passing interest, it may not be out of place to inquire if analogous phenomena have occurred elsewhere. This is not by any means the first time the problem has attracted my attention, and the experience gained in previous studies leads me to believe that wood and other organic materials, when alternately exposed to the extreme conditions of wetness and dryness, such as at the present time obtain at Butmir, are peculiarly liable to decomposition.

¹ "Uebrigens sprachen noch andere Umstände gegen Pigorini's Auffassung, besonders der, dass es in Butmir ausserordentlich wenig Ueberreste von animalischer Nahrung gibt, was schon früher zu der (auch von Mortillet speciell anerkannten) Auffassung geführt hat, dass man es da überhaupt nicht mit einem Wohnplatze, sondern mit einem Werkstättenplatze zu thun habe."—*Loc. cit.*, p. 208.

I remember being present on one occasion with Canon Greenwell and others at the opening of a barrow in Yorkshire, and when the central interment was reached it turned out to be apparently nothing more than a large empty hole, so that to inexperienced persons the investigation might have been passed over as of little scientific value. But, under the experienced eye of the famous barrow-explorer, it proved a highly instructive object-lesson in practical archæology. He explained that this was a burial in a wooden coffin, and although not a single particle of the wood remained, he showed the impressions of its fibres and the form of the board on the clay facings of the cavity. Of the body only a few fragments of the skull remained.

The following remarks, while pertinent to the question at issue, may be quoted as showing that the views now advocated are not new to science :—

Those who, like Professor Pigorini, are acquainted with the structural features of the *terremare* of Northern Italy, will not be surprised at the comparative rarity with which piles are met with in the *Terpen*, because of the rapidity with which timbers, when buried in dry earth, decay and disappear altogether, leaving in many instances no traces whatever behind them. This fact was strikingly shown by Chierici, who produced positive evidence of the former existence of piles in the upper strata of some of the *terremare* by showing that the holes left by the piles, after the woody fibre had completely disappeared by decomposition, had become subsequently filled up by dust and infiltrated material, which ultimately became hardened and so retained the actual form of the original piles. In short, natural casts of the original piles were accidentally

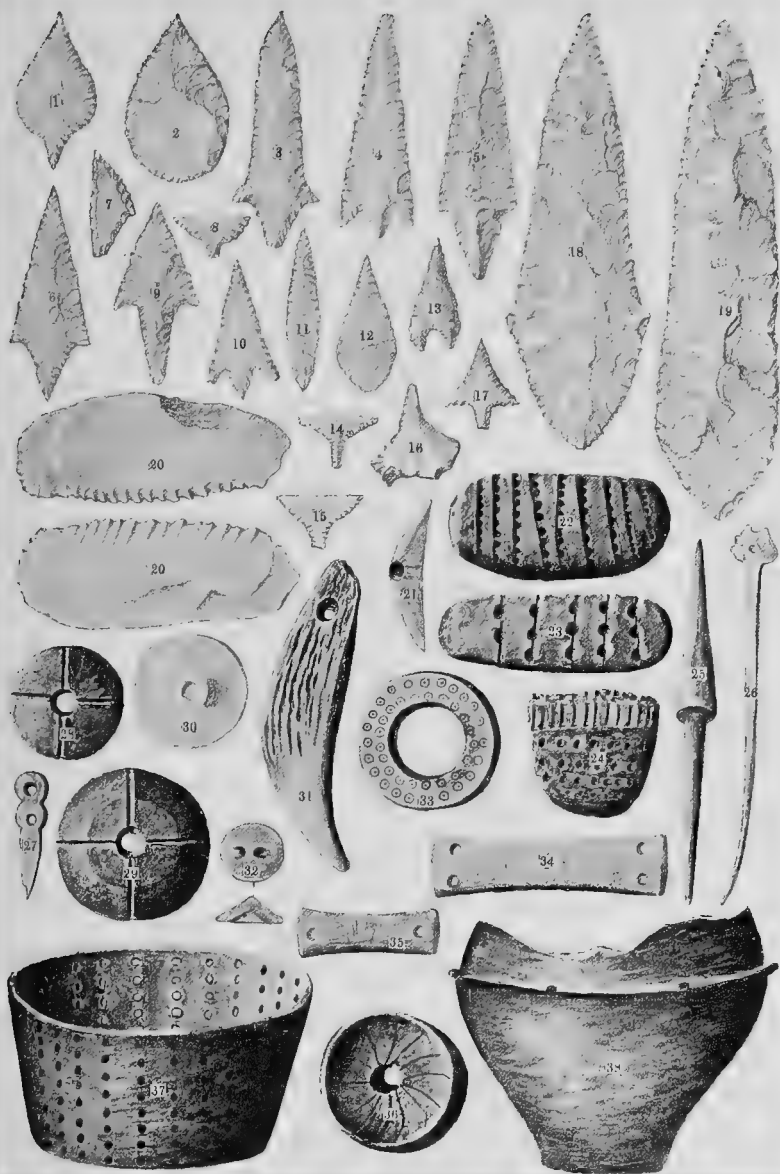
formed, and thus disclosed a knowledge of their former existence which otherwise might never have been suspected. To the soundness of this deduction I have myself unconsciously contributed by an observation which I made some years ago, while digging at the crannog of Lochspouts; and having recorded it, I may perhaps here be allowed to repeat my words: "One day I was greatly puzzled by finding what was evidently a portion of a birch-tree, from six to nine inches in diameter, quite flat, and with scarcely any wood left inside the thick bark. In no instance previously had I seen the evidence of pressure on logs of this size; but after carefully considering the point, it was ascertained that such effects occurred only in the upper portion of the mound, and above the log-pavement, where the wood had been exposed to atmospheric influences, so that when the woody fibres rotted away, the flattening of the bark was easily produced. All the logs found buried in water or mud retained their original dimensions, and showed no trace of having yielded to superincumbent pressure."¹

I agree with the suggestion that the inhabitants of the neolithic station at Butmir carried on, as special industries, the manufacture of pottery and stone implements; but I find no reason to suppose that the locality was exclusively confined to workshops. The workmen lived where they practised their respective trades and industries. Moreover, I think the evidence is sufficient to warrant the inference that they were acquainted with and practised the principles of the division of labour, as it would appear that they did not manufacture the perforated stone implements used by them. This business could be more economically done in the localities where the special stones were found *in situ*, just for the same reason that the manufacture of pottery

¹ Lake-Dwellings of Europe, p. 337

would be restricted to the locality where a suitable supply of clay was to be found. It is, therefore, not improbable that a system of barter went on among the inhabitants of neighbouring villages. That the colonists had living among them the agriculturists and shepherds who supplied the necessities of life, it is difficult to say. I find no mention made of the droppings of animals being found in the *débris*. Those of the sheep and goat, if present, could not be readily overlooked. Either the domestic animals were housed elsewhere, or if the inhabitants had none, they exchanged the products of their own industry for dairy produce. The village appears to have been unprotected by any kind of rampart, a fact which suggests peaceful times. The large assortment of arrow-points and spear-heads shows that hunting was not neglected; and we have already seen, by the finding of net-sinkers and loom-weights, that they were fishers and manufacturers of cloth. It is therefore evident that the Butmirians were a civilised people, and practised not only the principles of the division of labour in their own social organisation, but had commercial intercourse with neighbouring communities.

Evidence of such relationship among the neolithic inhabitants of Europe has been found in several places, as, for example, at Wallhausen and Maurach, both stations of the Stone Age in the Ueberlingersee. Indeed it would seem that in some villages the different trades had separate quarters assigned to them, precisely as is the case at the present time in Sarajevo.



Nos. 37 and 38 = $\frac{1}{2}$, and all the rest = $\frac{1}{2}$ real size.

PLATE XV.

OBJECTS FROM POLADA (FOR COMPARISON).

In conclusion, it only remains for me to say that the hypothesis, which represents the station at Butmir as a typical example of a pile-structure, analogous to the early *Pfahlbauten* of Central Europe, leaves not a single fact hitherto observed during the excavations unexplained. The vacant space underneath the common platform would be very naturally used as a place of concealment. It would thus satisfactorily account for the incident of the workman who laid aside his unfinished stone implements and the tool with which he worked till a more convenient time—a time which for some reason or other never came, and so these objects remained unclaimed.

The hardening of grain for mealing purposes can be readily effected by holding a bundle of the ears of corn for a few minutes over a white flame made from withered straw or other combustible materials. In this manner corn can be dried, ground, and baked within an hour from the time it was growing in the field. This method was on emergencies practised in Scotland up to recent times.¹ Such a method, if practised in Butmir, would account for the charred grains found here and there associated with slight remains of fires. The so-called fireplace, described by Mr Radimsky as a bed of ashes and charcoal lying immediately over the clay (p. 98), was probably of this kind, or it might have occurred before the common platform extended so far. The portions of burnt clay found scattered throughout the stuff, and which Mr Radim-

¹ See Sir Arthur Mitchell's 'The Past in the Present,' pp. 46 and 238.

sky supposes to have been fragments of hearths—an opinion which I willingly accept—would of course come under the category of the waifs and strays which found a permanent resting-place in the common dust-bin. These hearths would be made of clay spread over a portion of the wooden platform—probably loosely laid timbers—through the interstices of which fragments would readily drop down. This very obvious occurrence might therefore explain the finding of bits of charcoal and burnt clay in the upper portion of the clay-bed. Then, again, the equal distribution of the relics throughout the entire mass of the *débris*, and the stratification of its contents, are inexplicable on any other theory of habitation known to me.

Discussion as to Age of the Settlement.

In discussing the period to which this settlement belonged, the arguments centred on three points—viz., the absence of metals, the use of spirals as ornaments on the pottery, and the presence of idols, especially those supposed to be of foreign origin. Dr Montelius regarded the settlement as belonging to the Stone Age, although it was not customary to find spiral ornamentation (Plate XIV.) in stations of this period in Europe. But Bosnia being the borderland between the East and West, he thought this ornament had reached it earlier than Middle or Western Europe. He considered Butmir to be older than 2000 B.C.

M. Reinach said that nothing he had seen at Butmir

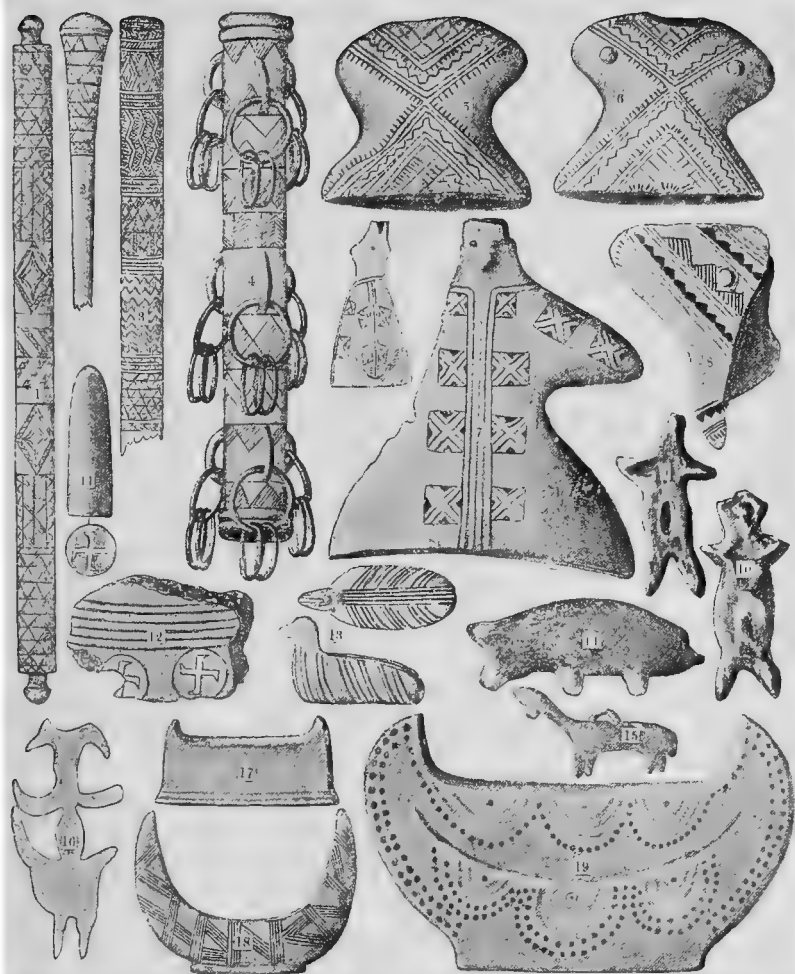


PLATE XVI.

Nos. 4, 9 to 13, 15 and 16 = $\frac{1}{2}$; 1 to 3, 5 to 8, 14 and 19 = $\frac{1}{4}$; and 17 and 18 = $\frac{1}{8}$ real size.

Nos. 5 to 8 are from Laibach; 9 and 10 from Lake Bourget; 13 from Haute-crive; 14 from Corcelettes; and 15 and 16 from Bodmann.

CLAY FIGURINES AND OTHER OBJECTS FROM LAKE-DWELLINGS.

emanated from Egypt, Babylon, or Phœnicia, and he believed that whatever technical or artistic skill the people of this station displayed was entirely due to an indigenous European civilisation.

Dr Hoernes advocated a connection by way of the Danube with the Phœnicians and the eastern parts of the Mediterranean.

The President (Professor Virchow) said that, from the general appearance and *technique* of the relics, he considered them to belong to the metal period; and seeing that more than three-fourths of the area of the settlement still remained unexamined, he was not convinced that bronze would not yet be found in it. He suggested that an effort should be made to find the necropolis of the village, as burials were often richer in the remains of art than dwelling-places. He also propounded the theory that a colony of Phœnicians might have come to Bosnia and established at Butmir a workshop for the manufacture of pottery and stone implements.

Mr Szombathy thought pottery more important in determining age than stone or metal objects. The figurines were like those from Amorgos in the Ægean Sea. The spirals, as well as several other ornaments, he believed to have been brought originally from Egypt, and to have extended in the course of time as far as Scandinavia. He could not admit the high antiquity assigned to Butmir by Dr Montelius, and would not place it beyond the Mycenæan period.

Professor Hampel was the only speaker who expressed any doubt about Mr Radimsky's hut-theory of the hol-

lows, and he directed attention to the fact that no member offered any other explanation of them. He did not, however, think that Butmir had been a *terra-mara*, but a workshop (*Fabrikationsort*), which lasted for a long time and was latterly abandoned.

Dr Voss informed the members that he saw a neolithic station at Tordosch, near Broos, Transylvania, which was very like the station of Butmir. Among its relics were clay figurines, but not so well formed as the best of the Butmir idols; a fine black pottery ornamented with spirals, diamond-shaped spaces, plain bands alternating with others filled in with punctures or linear incisions, &c.; and a coarse kind very simply ornamented.¹

The impression which I formed as to the origin of these settlers at Butmir is, that they were a stray branch of the original colonists who founded the lake-dwellings of Central Europe. It would appear that they found their way from the south side of the Danubian valley into the plain of Ilidže by way of the Bosna river, much about the same time that others reached Switzerland and North Italy. The grounds for this opinion are based on the resemblance between the relics of Butmir and those of certain lake-dwellings, such as Polada in Italy and Laibach in Carniola (Plates XV. and XVI.). According to the general system then in vogue, they built their huts on wooden platforms raised above the ground, manufactured their own clothing, utensils, implements, and weapons. The

¹ See *Zeit. für Eth. verhand.*, 1895, p. 125.

remains of burnt huts described by Mr Radimsky as lying near the surface of the relic-bed, were in all probability the first constructed by them. Nor is it unlikely that the village came to a sudden end by a conflagration, either through accident or design. At any rate, it does not appear to have had a very long duration, nor was it rebuilt. Hence its great archæological value in furnishing such a large collection of relics belonging to a limited but tolerably well-defined period.

The excavations at Butmir during 1894-96 yielded an enormous quantity of stone implements of the same types as those already described. One broken axe showed an unfinished shaft-hole, with the central core still remaining in it—thus proving that the method of operating was by a tubular borer. But the most interesting addition to the collection were fragments of pottery with new forms of the spiral ornamentation both incised and raised. Among the clay idols, many portions of which turned up, were a few pieces of burnt clay with rude representations of the human face. Only three bone relics were found—viz., an awl and two fragments of pointed objects, one of which had been perforated.

CHAPTER V.

THE PREHISTORIC CEMETERIES OF GLASINAC AND JEZERINE.

IN the previous chapter we have got a glimpse of prehistoric man as an intelligent and industrious workman fashioning his implements, tools, and weapons from the stones found in his immediate neighbourhood, or, sometimes, importing them ready-made from distant parts. In the fragments of broken dishes and terra-cotta images collected from the refuse accumulating around him, we have positive proof that he possessed a taste for decorative art and some degree of refinement. But in all these remains, though indicating much handicraft skill, there is no evidence of his religious beliefs, with the exception of the idols, which do little more than suggest the idea of his recognition of higher powers. This deficiency is no doubt due to the fact that we are as yet ignorant of the method by which he disposed of his dead. But in the chapter we are now entering upon the materials reveal a different story. Here we see Prehistoric man inspired with hopes and convictions which evidently carry his mental vision beyond

the affairs of active life. The remains of his deceased friends are ceremoniously deposited in the earth, and efficiently equipped with such necessities of this life as he thinks essential, according to their rank and station, for their career in a future existence. The grave itself was therefore a reflex of the current civilisation, and to it was often consigned, as a tribute of respect and honour, the highest art products of the age. Hence, to protect these treasures from sacrilegious hands was often as much the motive in rearing an endurable sepulchre as anything else. But however this may be, it is certain that the custom of raising a mound of earth or stone to mark the resting-place of the dead can be traced back to the remotest times. In the ages of Stone and Bronze this custom may be said to have attained its highest development. The pyramids of Egypt, the mighty mounds of New Grange and Silbury, and the thousands of minor tumuli and cairns scattered over Europe, bear striking testimony to this phase of prehistoric civilisation. In the recently investigated cemeteries of Glasinac and Jezerine we have examples of various kinds of interments, which I will now endeavour very briefly to describe.

A. GLASINAC: ITS CEMETERIES AND WALLBURGEN.

The forenoon of Tuesday the 21st was devoted to a discussion on the cemeteries of Glasinac, the relationship between them and the adjoining *Wallburgen*, or hill-forts, and the place of their antiquities in the

prehistoric civilisation of Europe. At the outset Mr Franz Fiala epitomised the general results of the systematic excavations which have been carried on during the last few years, from which, as well as from the official reports already published, I have compiled the following summary of the discoveries in question.

When the highway from Sarajevo to Višegrad was being constructed in the year 1880, the workmen found

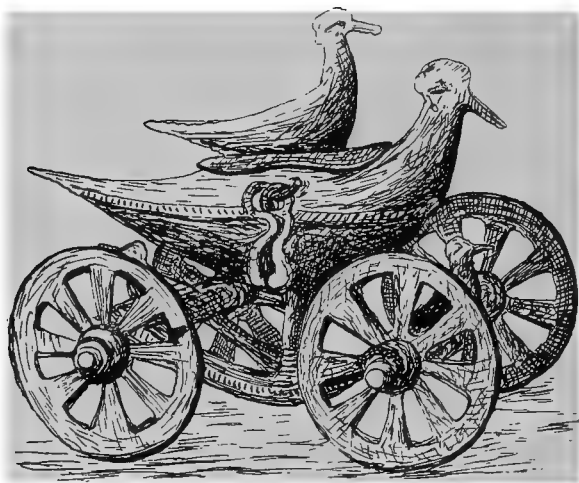


Fig. 26.—BRONZE WAGGON, 6 inches high.

convenient material for road-making in the contents of some large tumuli situated a few miles to the east of the *Kaserne* of Podromanja, in the Glasinac district. In one of these mounds they found a number of relics, among them being a small bronze chariot (*Kesselwagen*) in the form of a bird (Fig. 26), together with a beautiful Oinochoë, a stout armlet, a couple of fibulæ,

ornamented discs, &c. This discovery was recorded by Dr Ferdinand von Hochstetter in the Proceedings of the Anthropological Society of Vienna for 1881.¹ The interest excited by these discoveries induced some of the officers stationed in the district to open other tumuli in the neighbourhood, and in this way a further collection of relics was made and sent to the Natural History Museum in Vienna. A description of these objects was published by Dr Moriz Hoernes in the Proceedings of the same Society for 1889.²

In 1888 systematic excavations of these tumuli were begun by the authorities of the *Landesmuseum* at Sarajevo, which have been continued yearly since, and of which the following reports are now published in the splendid serial work entitled 'Wissenschaftliche Mittheilungen aus Bosnien und der Herzegovina':—

1. 'Hugelgräber und Ringwälle auf der Hochebene Glasinac.' By Dr Ciro Truhelka.

This report, containing 52 pages and 238 illustrations in the text, embraces a period of four years, from 1888 to 1891, during which 374 tumuli were opened. I may mention that the report for 1888 was also published in the Proceedings of the Anthropological Society of Vienna.³

2. 'Ausgrabungen auf der Hochebene Glasinac im Jahre 1891.' By Georg Stratimirović Ritter von Kulpin.

¹ Mitt. der Anth. Gesell. Wien, vol. x. p. 289.

² Ibid., vol. xix. p. 134.

³ Ibid., vol. xix. p. 24.

This is a preliminary report, and extends over 13 pages, with 33 illustrations.

3. 'Die Ergebnisse der Untersuchung prähistorischer Grabhügel auf dem Glasinac im Jahre 1892.'
By Franz Fiala.

Contains 43^o pages, and 77 illustrations in the text.

4. 'Die Ergebnisse der Untersuchung prähistorischer Grabhügel auf dem Glasinac im Jahre 1893.'
By Franz Fiala.

Contains 36 pages, 1 plate, and 81 illustrations in the text.

The elevated upland region to which the name Glasinac is given occupies a superficial area of about 30 square miles (Austrian), with an average elevation of about 900 *mètres* above the level of the sea. It is surrounded almost on all sides by mountainous ridges, which in some places attain an elevation of 1300 and even 1600^m. The surface of this confined plateau rises here and there into hills and stony uplands, sometimes wooded, but always affording good pasture for cattle and sheep. Only portions of the lower lands are cultivated, so that its inhabitants depend for their living mainly on the produce of their domestic animals.

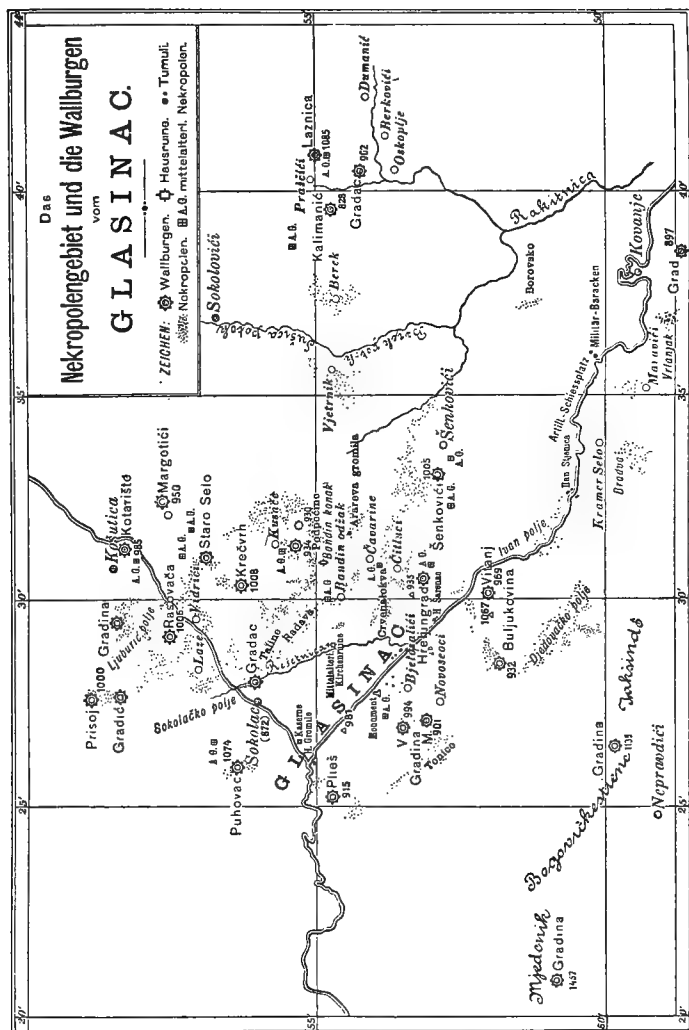
The tumuli are situated on the slopes of the rounded hills, where they are distributed in some twenty or thirty groups or cemeteries, each group numbering several hundreds. Their total number is estimated at 20,000—an estimation which is now regarded as coming far short of the real number—of which about 1000 have already been explored. They vary in length and

breadth from 2^m. to 20 or even 40^m., and in height from 0.35^m. to 4^m.—a maximum which, however, is seldom reached. They are constructed of earth and surface stones gathered from the vicinity. Tumuli of earth alone are occasionally met with; but these, according to Mr Fiala, are of later construction.

The builders of these burial-mounds practised both inhumation and cremation, the former being in the proportion of 60 per cent and the latter 30 per cent, while the remaining 10 per cent were of a mixed character—*i.e.*, contained both kinds of interments. As a rule, the remains of the body were found resting on the natural surface of the earth surrounded by a circle of stones; but, sometimes, a pavement of stones was laid on the earth, on which the body was deposited. In one or two instances the body was protected from the superincumbent mass by a rude stone cist. Some tumuli contained more than one burial, even as many as eleven having been recorded from a tumulus at Bradva, and nine in each of the tumuli at Taline and Ilijak. No classification of grave-goods having as its basis the method of interment could be made out, so that the two systems must have been practised contemporaneously—probably representing different Cults among the same people. Mr Fiala expressed the opinion that inhumation was earlier in use, and in support of this he observed that the few burials with pre-Hallstatt grave-goods were all of this kind. Some of the tumuli contained objects of the later Iron Age, and a few others Roman remains. But the vast ma-

jority, indeed to within two or three per cent of the whole, belonged to the Hallstatt period.

The *Wallburgen* or *Ringwälle* are enclosures analogous in many respects to our Scottish hill-forts. About thirty of them have been discovered throughout the Glasinac district, as may be seen by reference to the accompanying map, page 135. They are always situated on commanding elevations, more especially along the routes by which access can be had to the plateau from beyond the surrounding mountains. Their form generally assumes that of a circle, ellipse, trapeze, or rectangle, except when it is determined by the configuration of the site, in which case it may be extremely irregular. But, as a rule, it is a circular wall of small stones enclosing an area varying in extent from 10^m. to 100^m. in diameter, or sometimes much more. The height and thickness of the surrounding wall or rampart also vary much. Dr Truhelka describes the *Gradac bei Kusače* as having a diameter of 84^m., with a wall 7^m. broad at the base and 0.8^m. high. The *Ringwall* at Puhovac, measuring 105^m. in length and 75^m. in breadth, is surrounded by a double wall. By digging into the interior of these fallen ramparts, they were found to have been occasionally built with a wall-facing. Generally they had only one entrance, which sometimes showed evidence of having been guarded by special means, such as a detached fortlet. But these *Wallburgen* have not yet been sufficiently examined to furnish archæologists with final results, although, so



far, they point to one or two important conclusions. Mr Fiala maintains that they were contemporary with the tumuli, and that both are the work of the same people. In support of this view, he points to the fact that the tumuli are always grouped in the close vicinity of a *Wallburg*. In one or two instances he observed a large tumulus, supposed to have been the grave of a chief, in which the feet of the skeleton or skeletons were directed towards the *Wallburg*. But the strongest evidence in favour of their common origin is that the relics from both belonged to the same class of archæological remains. So far as the *Wallburgen* have been explored, 10 per cent of them appear from positive evidence to have been dwelling-places, as they contained relic-beds from 0.5^m. to 1.5^m. thick which yielded remains characteristic of the Hallstatt period.

Of 43 human skulls collected from the cemeteries of Glasinac, only 32 were in a sufficient state of preservation to furnish anthropological data of any significance. Their cephalic indices varied, according to Dr Glück, from 73 to 82, of which 76 per cent were dolicho- or meso- cephalic, and 24 per cent brachycephalic. The only safe conclusion which can be drawn from these data is that the population was of a mixed character.

It is interesting to compare Dr Glück's measurements of these prehistoric skulls with those taken by Dr Weissbach from 2000 persons throughout Bosnia and Herzegovina. Thus, of 1500 Bosniac heads, 7 per cent were dolichocephalic and 93 per cent brachycephalic;

while in Herzegovina, over an average of 500 individuals, these cephalic proportions were still more exaggerated, only 6 per cent being dolichocephalic. It would therefore appear that a large majority of the present inhabitants of Bosnia and Herzegovina are round-heads, whereas the reverse was the case with the people whose remains have been examined in the prehistoric cemeteries of Glasinac. This deduction derives some significance from the fact that it is in accordance with the historical records which relate that a steady immigration of Slavs, who are a round-headed people, has taken place into the Balkan peninsula from the earliest times.

It would be useless to attempt to give a systematic account of the remarkable assortment of relics collected from the tumuli of Glasinac without a full complement of illustrations. Such a desirable work would be best accomplished by a translation of the original reports of the investigators—an undertaking which, on the present occasion, is manifestly out of place, as it would occupy more space than is at my disposal for this entire volume. My efforts in this direction must, therefore, be restricted to a few notes and illustrations of some of the more characteristic objects from among the various groups into which they fall to be classified. For this purpose it will suffice to take a brief survey of them under the common categories of implements, weapons, and ornaments.

I. *Implements, Utensils, and Objects of General Industry.*

As might be expected, industrial remains are not

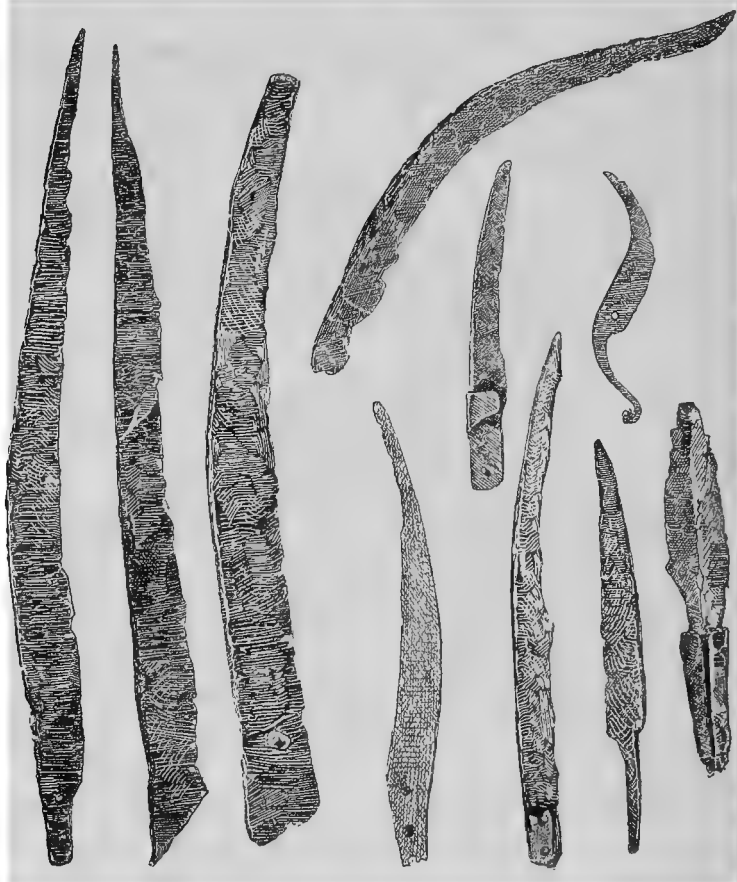


Fig. 27.—IRON KNIVES AND SWORD-BLADES (about $\frac{1}{4}$).

the most frequently met with in these ceremonial interments, but as they belong to a time when prospective

success in a future world was the chief object aimed at, there is practically no restriction to the class of objects deposited with the dead. By this time it would appear that iron had almost entirely superseded bronze in the manufacture of cutting tools, and hence we have to note the presence of a score or so of knives (Fig. 27), three double-edged axes, two celts (Fig. 28), two gouges, a chisel-like tool, a curious knife-handle (Fig. 29)—all made of iron. We have also to note a num-

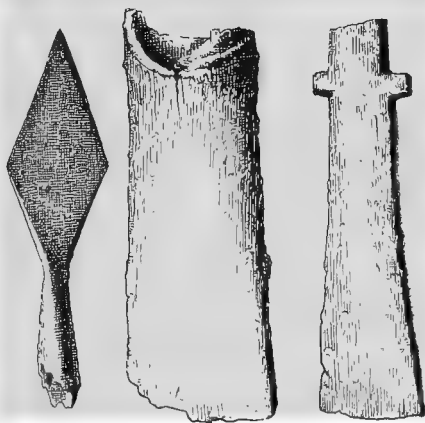


Fig. 28.—IRON SPEAR ($\frac{2}{3}$) AND CELTS ($\frac{1}{3}$).

ber of bronze needles, pincers, whorls, &c., a perforated stone axe-hammer, and some sharpening-stones, perforated at one end for suspension. One remarkable object, of which there are several examples, consists of a cylindrically shaped hone in a bronze setting (Fig. 30).

Pottery is very much broken, and few vessels could be restored; but nevertheless the fragments indicate a considerable variety of form and ornamentation—the latter being formed, though sparingly, of concentric circles, semicircles, lines, and dots. There are vessels with round or flat bases, and some have small handles resting on the body of the dish, while others project from the side high above the rim (Fig. 31). Other

forms are after the Greek drinking-cup or *skyphos* (Fig. 32). Vessels made of bronze are not unfrequently met



Fig. 29.—IRON SPEAR-HEAD ($\frac{1}{8}$) AND IRON HANDLE OF CLASP-KNIFE ($\frac{2}{8}$).



Fig. 30.—SHARPENING STONE IN BRONZE HANDLE ($\frac{1}{8}$).

with (Fig. 33), among them being a percolator with a long handle as shown on Fig. 32.

II. *Weapons and Military Accoutrements.*

Among the warlike materials, iron lances occupy the first place in point of numbers. They vary in length from 12 to 60^{cm}. The very large ones show a strongly

marked midrib (Fig. 34), but there are others quite flat and broad-leafed (Figs. 28 and 29). There is also part of a bronze spear, with a sharply raised midrib (Fig. 35). Among the objects which may be naturally associated with lance-heads are some conical butt-ends of iron like those from La Tène,¹ and others greatly elongated, as seen in Fig. 34. The short flat dagger-blades, with rivet marks at the end, are found made of bronze as well as iron. Arrow-points are also made of bronze in the form of a small three-sided object, with a socket for the shaft (Fig. 34).

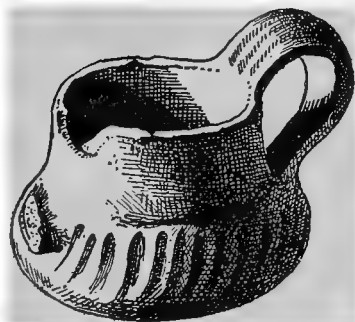


Fig. 31.—AN EARTHENWARE JUG ($\frac{1}{2}$).

Swords are of two kinds. The one is a short one-edged blade, more like a bent knife, from which, indeed, it is only distinguished by its greater size (Fig. 27). The other is a double-edged weapon, with an ornamental pommel (Fig. 34).

The large iron axes, with two cutting edges like the copper implements of Hungary, and the perforated stone axe-hammer head, might be regarded as battle-axes.

As a military relic, great interest is attached to a helmet (Fig. 36) found in the Arareva tumulus, which has its margin set with a row of bronze studs, and shows

¹ See 'Lake-Dwellings of Europe,' Fig. 88, Nos. 7 and 10.

traces of having been still more ornamented with silver bands. In one or two interments the head was found to have been covered with a large bronze dish of peculiar shape and form (Fig. 37).

The umbo of a shield was among the relics in a

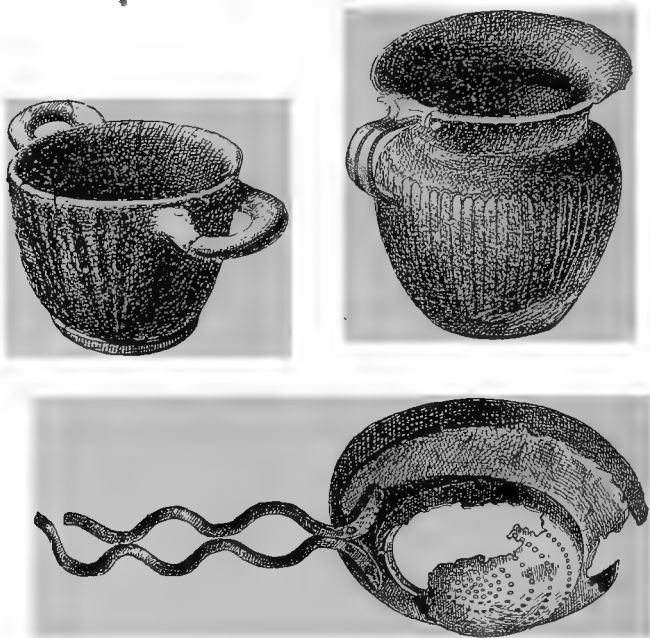


Fig. 32.—BRONZE CUP, diameter 8cm.; SKYPHOS, 7cm. in diameter, with traces of painting; BRONZE PERCOLATOR, 18cm. long.

tumulus at Čitluci, which shows ornamentation of concentric lines and dots around the central point (Fig. 38). That the Glasinac heroes were in the habit of protecting their persons from the blows of the enemy was first suggested by the finding of some seventy bronze studs in a tumulus at Koraćev, which were supposed to have

been sewn on leather and used as a cuirass or some kind of breast protector. This idea has since been greatly strengthened, if not confirmed, by similar finds coming to light in several other tumuli. In Mr Fiala's first report on the investigations at Glasinac he figures one of a pair of greaves found on the leg-bones of a skeleton in a tumulus at Čitluci made of beaten bronze "von griechischer Arbeit" (Fig. 39). But the most remarkable discovery of this nature was in 1893, when three pairs of greaves, curiously constructed of

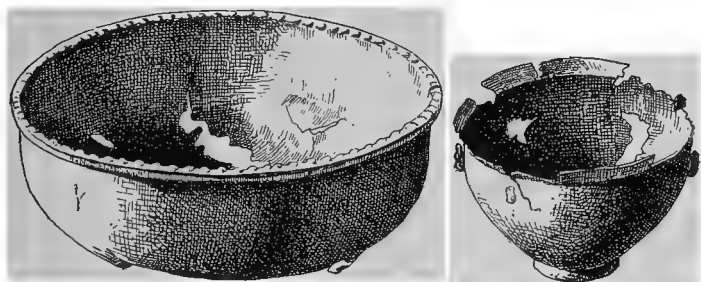


Fig. 33.—BRONZE BASIN ($\frac{1}{8}$) AND CUP ($\frac{1}{3}$).

bronze plates and ornamented in various ways, came to light in a group of tumuli near the *Burgwall* of Ilijak (Fig. 40).

Girdles or waistbands, to which the sword could be attached, must have been largely used—a fact which may be deduced from the presence among grave-goods of hundreds of clasps, buckles, studs, discs, pendants, &c., with which these articles of dress were wont to be adorned. Fig. 41 shows one of the earliest specimens, being made with small solid studs arranged in rows.

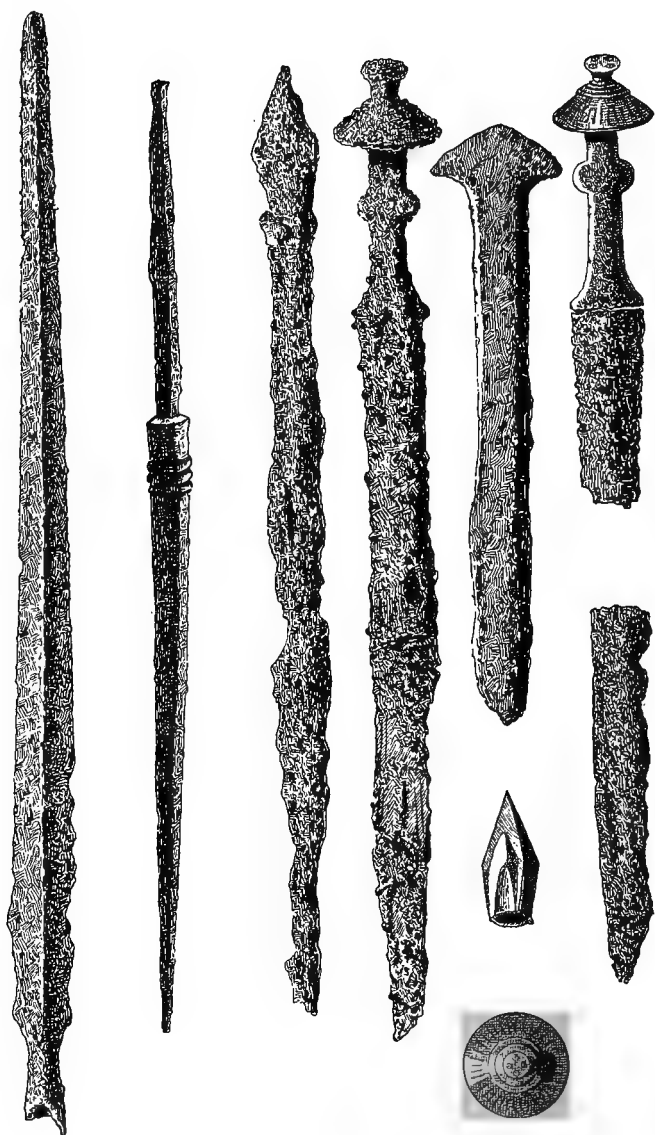


Fig. 34.—IRON WEAPONS ($\frac{1}{4}$) AND A BRONZE ARROW-POINT ($\frac{3}{4}$).

Portion of an iron bridle-bit, with a division in the middle and large side-rings, reminds one of the La Tène examples.

III. *Articles of Dress and Personal Adornment.*

1. *Fibulæ*.—Among the many articles of ornamental use which have come down to us from prehistoric times, there is none which has played a greater part in the successive phases of civilisation than the brooch or fibula. Since the principle of what is known in modern times as the “safety-pin” was invented—and that was in the Bronze Age—every nation, in every age, seems to have exhausted its ingenuity in devising methods by which this essential article of dress could be made as ornamental as possible. The common straight pin is as old as the invention of clothing itself, and the material of which it was first made must have been wood or bone. But no sooner was the art of making bronze known in a community than the superiority of this material would commend itself to the pin manufacturer. The sharp points of long pins protruding here and there from one’s garment, even were it a coat of skins, would be as awkward in ancient as in modern times; and hence the urgency to have not only the point covered up, but also some



Fig. 35.—PORTION OF A
BRONZE LANCE ($\frac{2}{3}$).

means to prevent the pin dropping out. The first step

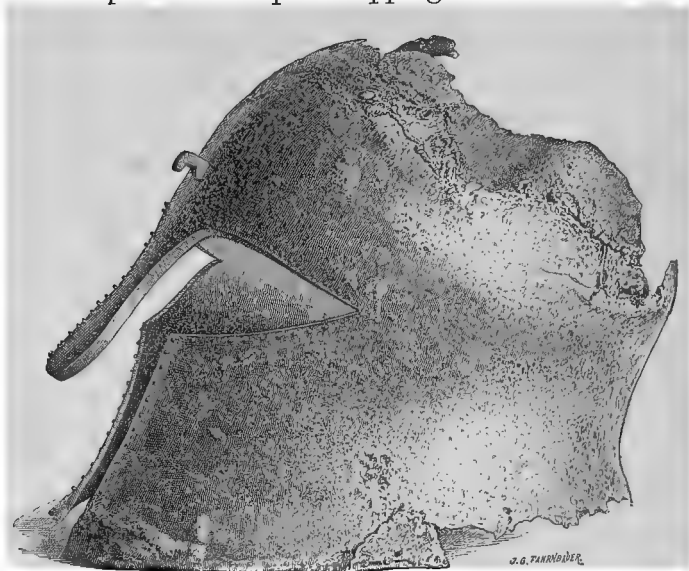


Fig. 36.—BRONZE HELMET FROM ARAREVA TUMULUS.

in this direction was to bend the wire so as to bring both ends together, and then to apply some movable

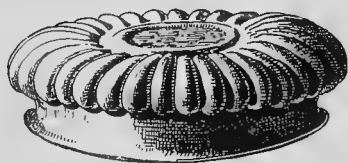


Fig. 37.—BRONZE DISH (about $\frac{2}{3}$).

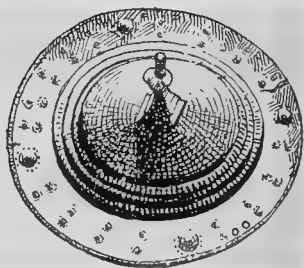


Fig. 38.—SHIELD ORNAMENT OF BRONZE ($\frac{1}{4}$).

adjustment for securely fastening them in this position

—a purpose most effectually carried out by attaching a hook or clasp to the head of the pin. The next progressive step was to subject the stem to one or more twists (Fig. 42), so as to give it greater elasticity. The subsequent modifications and improvements introduced into the structure of this primitive appliance are well illustrated in the array of specimens collected from the cemeteries of Glasinac. As a rule, these fibulæ are made of bronze, but examples made of iron are not uncommon, though in a much more decayed condition than the former. In order to distinguish the varied forms of fibulæ from each other, archæologists are in the habit of classifying them into groups, naming each group after some well-known object which they may happen to resemble, or on account of some special peculiarity in their structure. Thus we have the *spectacle-fibula*, which is made of a round wire twisted into two spiral coils, without an intermediate body (Fig. 43). Of this kind some three or four dozen specimens have been found. The *disc-fibula*, a form peculiar to Glasinac, consists of an ornamental plate of bronze, generally two or four discs united, under which the pin is concealed

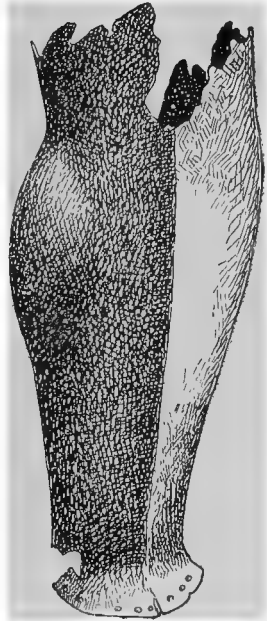


Fig. 39.—BRONZE GREAVE ($\frac{1}{4}$).

(Fig. 44). This type seems to have been developed from the former by merely converting the coiled wire into a solid plate. In support of this view it has been pointed out that the prevailing ornamentation—viz., concentric circles—is merely a survival of the spirals in the earlier form. The example illustrated by figure 44 has six lobes of uniform size ; but this is exceptional, as

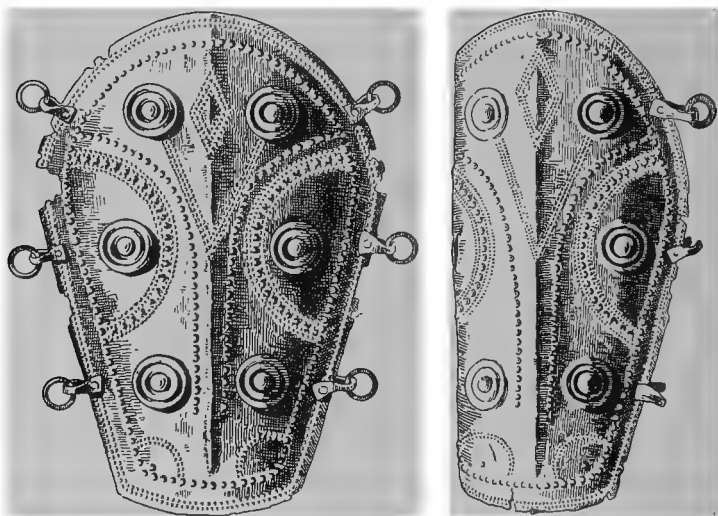


Fig. 40.—BRONZE GREAVES ($\frac{1}{2}$).

generally there are but two large and two small ones arranged alternately, the former corresponding with the spiral coils in figure 43, and the latter merely filling in the diverging spaces. In the centre of each lobe there is a knob, around which the inscribed circles are disposed concentrically. *Bow-shaped fibulæ* may be divided into two classes, according as they have the

twisting of the stem at one or two points. Those having a doubly twisted stem are by far the most numerous in Glasinac, amounting to not less than 44 per cent of the whole (Fig. 45). Formerly it was maintained that this type was peculiar to the regions north of the Alps; but in face of the discoveries at Glasinac this opinion must now be abandoned.¹ Those with only one twist are said to be more allied to Greek forms (Fig. 46). Other fibulæ in this collection belong to foreign types, and are named accordingly; such are the "Peschiera," "Certosa," and "Romano-provincial" types (Fig. 47). Another form, most abundantly met with in the necropolis of Santa Lucia and

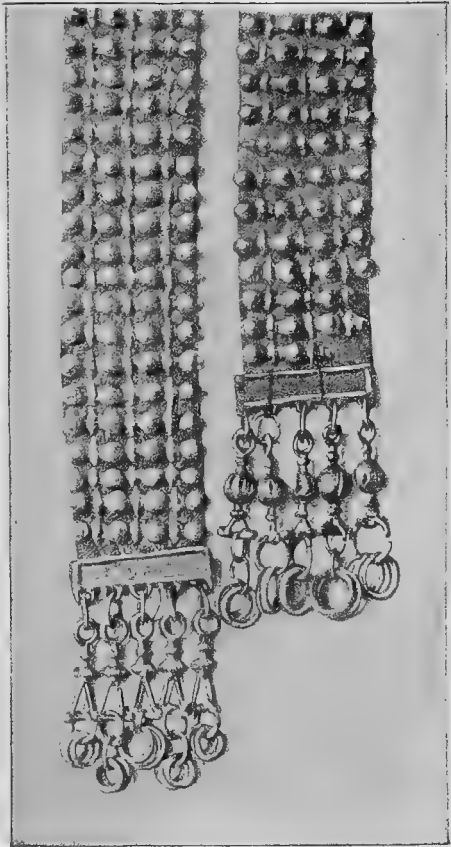


Fig. 41.—BRONZE GIRDLE FROM ARAREVA TUMULUS.

¹ See Dr Hoernes, Mitt. Anthrop. Gesel. Wien, vol. xix. p. 135.

in some of the lake-dwellings in North Italy, is the *Serpentine fibula*.¹

2. *Phaleræ*.—Disc-shaped ornaments, either flat or slightly convex, are of various sizes, and usually carry on the back or under-surface one or more clasps or hooks for attachment. Their ornamentation consists of geometrical figures engraved in lines and dots, or symmetrical perforations (Figs. 48, 49, and 50).

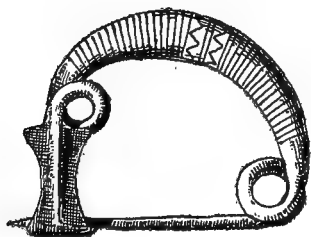


Fig. 42.—BRONZE FIBULA.

3. *Diadems, &c.*—The head of the corpse was sometimes found surrounded by a fillet or narrow band of bronze with linear ornamentation, often in diamond-shaped spaces—probably ordinary diadems, more for the use of the living than for the dead.

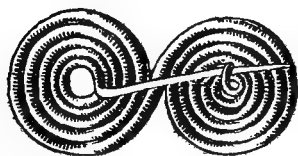


Fig. 43.—BRONZE FIBULA (1).

4. *Rings*.—Next to the fibula, the armlet was the most common article of personal adornment among the ancient people of Glasinac.

The prevailing form was that of a massive ring with punctured and linear ornamentation, whose ends overlapped and terminated occasionally in ornamental knobs; but the most remarkable is that made of a spiral band

¹ Examples of both the Peschiera and the Serpentine fibulæ are figured in the 'Lake-Dwellings of Europe,' the former in Fig. 64 (Nos. 22, 23, and 24), and the latter in Fig. 50 (Nos. 11, 13, and 15).

developing at one end into a broad spatula as shown in Fig. 51. That represented by the lower figure in the illustration is interesting as an example of the process of repair resorted to when broken. Bracelets and hanging ornaments were also made of bronze wire, and rarely of silver wire, in the form of coils, with or without twisted knots (Figs. 52 and 53). Finger-rings were equally varied in form, the most common being the spiral, which in one instance had both ends

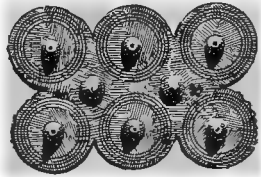


Fig. 44.—BRONZE PLATE OF A FIBULA (3).

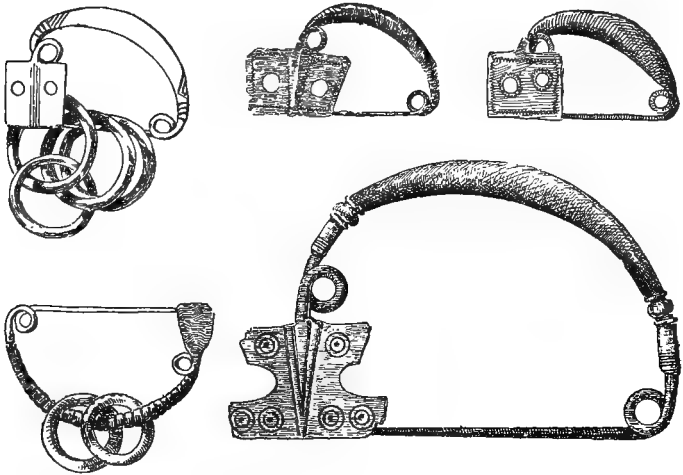


Fig. 45.—BRONZE FIBULÆ WITH TWO SEPARATE TWISTS (3).

terminating in large balls. Another exceptional form was that of a simple ring with an ornamented expansion plate.

5. *Pins*.—It need hardly be said that ornamental pins are both abundant and varied in form, the head being round, oval, twisted, or curved. Some have a double stem, and there are others with a peculiar curve in the middle like those from the *terremare*. A few curious examples found in the Aràreva tumulus have a thimble-like protector on the point (Fig. 54).

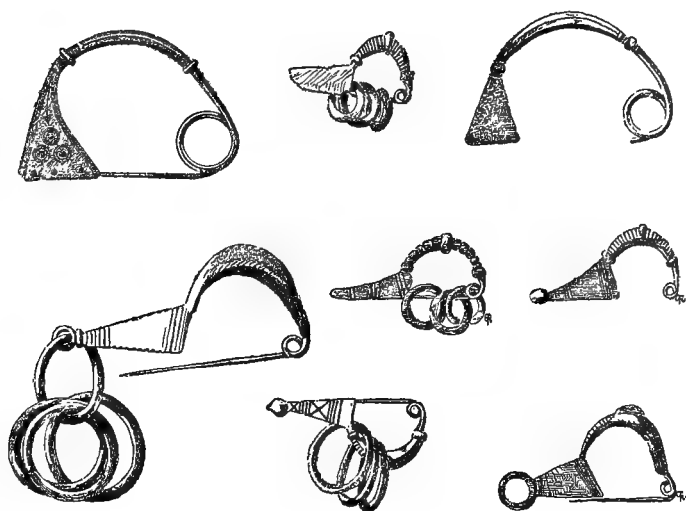


Fig. 46.—BRONZE FIBULÆ WITH ONE TWIST (about $\frac{2}{3}$).

6. *Buttons, Pendants, &c.*—In this category may be placed a promiscuous assortment of knobs and discs perforated with symmetrical apertures, buckles, small crosses, and star-shaped objects. A form which appears to be peculiar to Glasinac is an equal-armed cross, each end terminating in a transverse catch. Pendants seem to be the embodiment of the metallurgical skill and art

of the period, appearing as hollow pear-shaped drops of open work, small jugs, bird-shaped objects, miniature celts and spears, &c. (Figs. 55 to 57).

7. Among *Miscellaneous* objects may be mentioned some novel articles made of a hollow cross, one arm of which is attached to a crescent-shaped expansion (Fig.



Fig. 47.—ROMAN FIBULA ($\frac{3}{4}$).

58). There is also a massive neck-ring or torque over 5 inches in diameter, with a running spiral orna-

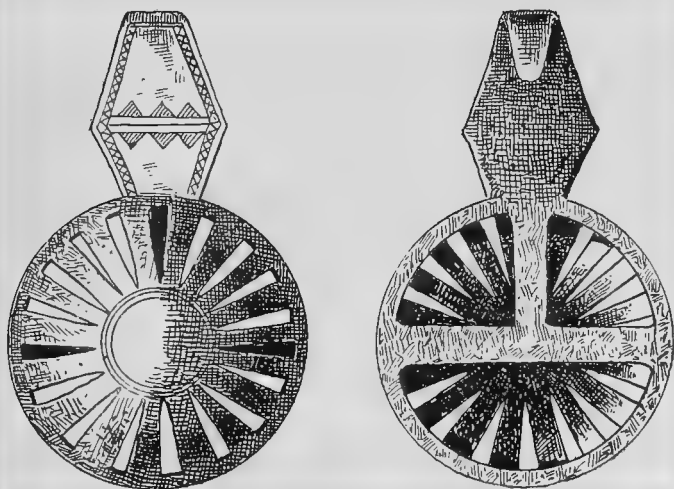


Fig. 48.—ENGRAVED BRONZE PENDANT ($\frac{1}{2}$).

mentation (Fig. 59). Beads are of bronze, amber, glass, enamel, stone, and bone. The metallic specimens show the greatest diversity in form, being wheel-shaped.

cylindrical, conical, &c. There are also a few bear-teeth, perforated for use as hanging ornaments.

Such is an epitome of the facts and materials re-

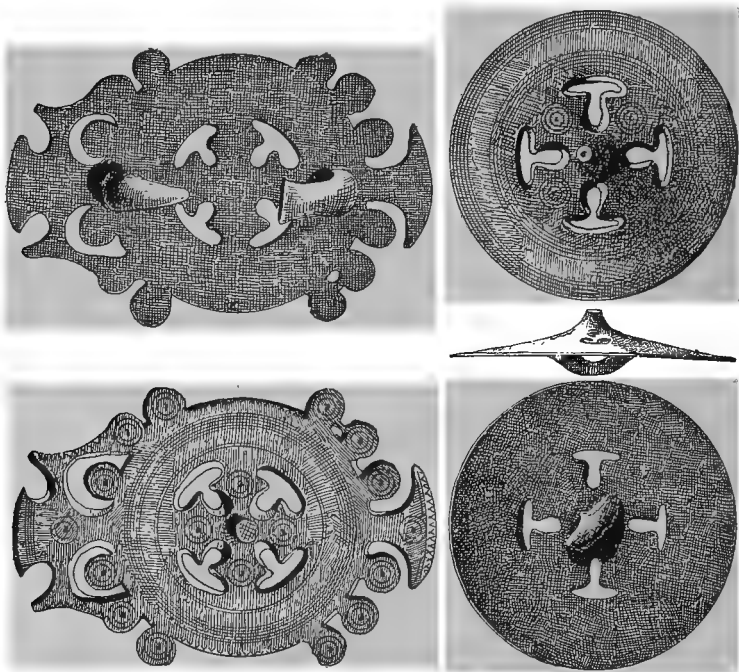


Fig. 49.—BRONZE BUCKLE AND DISC ORNAMENT ($\frac{2}{3}$).

garding the tumuli and hill-forts of Glasinac submitted to the assembled Congress for their deliberation.

Discussion.

Dr Montelius, in opening the discussion, observed that the Hallstatt remains from these tumuli represented a long period of time, as they contained ex-

amples of the successive stages in the development of the fibula from an early age down to that known as the *Certosa fibula*, which had already been accurately dated to a period four centuries before Christ. In some of these forms he saw a strong resemblance to those of Italy and Greece. As Glasinac did not lie in the direct line from Trieste or Fiume to the Danube regions, it was difficult to explain how the Hallstatt civilisation had become so highly developed there. Agriculture would not afford a livelihood to such a large population as was indicated by these extensive cemeteries. He would like, therefore, to know if any traces of mining operations had been observed, as was the case at Hallstatt, which would account for the populous state of this poor district. He had heard it stated that manganese was to be found in the iron ore of the neighbourhood; if so, could it not be determined by analysis if the iron objects collected from the Glasinac tumuli contained traces of this mineral, and thus prove that they were made in the locality?

Mr Radimsky stated, in reply to Dr Montelius, that no positive evidence of prehistoric mining had been observed in Bosnia, but that traces of iron-smelting in the form of slag and scorixæ had been found at several places. His opinion was, that the ironstone often found on the surface had been collected in small open furnaces.



Fig. 50.—BRONZE] HOOK
FOR SUSPENSION (†).

M. Reinach considered Glasinac to have been a sacred burial-place, to which, for religious reasons, a number of Illyrian tribes, from a distance, were in the habit of sending their dead for burial. He also suggested that the *Wallburgen* might have been places of worship instead of habitations.



Fig. 51.—TWO BRACELETS OF SHEET BRONZE (2).

In reply to these criticisms, Mr Fiala produced statistics to show that there was nothing so remarkable about the number of the tumuli as to demand such far-fetched explanations. Allowing three burials for each tumulus, a number which he thought was about the correct average, it gave a total of 60,000 interments, and spreading this over a period of 600

years—i.e., from 1100 to 500 B.C.—we had only 100 deaths a-year. With a death-rate of only 10 per cent, a population of 10,000 would account for the entire burials in all the cemeteries of the Glasinac district. That it contained a population of this number was not unlikely, seeing that at the present time it amounted to 25,000.

Professor Virchow saw nothing, either in the osseous

remains or in the relics of the people, which would lead him to suppose that in Glasinac we had a *primären Culturcentrum*. He

agreed with Dr Montelius that the foreign influence had come, by way of the sea, from Italy and Greece, which led to new developments of culture in the interior; and, as a proof that it was not by land that this influ-

ence had come, he instanced the necropolis of Santa Lucia. On the other hand, Professor Hampel, admitting the existence of this foreign influence, advocated its extension into Bosnia by a land route, and pointed to several localities in the Danubian valley where fibulæ, armlets, &c., had been found similar, both in form and ornamentation, to those of Glasinac. Similarly, but at

a later time, the La Tène civilisation had extended to Bosnia from an opposite direction—viz., north-west.

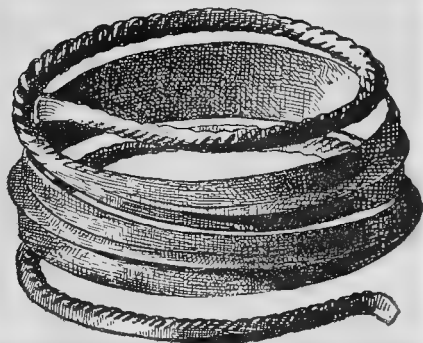


Fig. 52.—BRONZE ARMLET ($\frac{1}{2}$).



Fig. 53.—BRONZE BRACELET ($\frac{1}{2}$).

Dr Verneau pointed out that there was a strong likeness between the skulls from the tumuli of Glasinac and those found in the graves at Hallstatt, the majority in both places being dolichocephalic—a craniological phenomenon which was reversed in the case of the Swiss lake-dwellers.

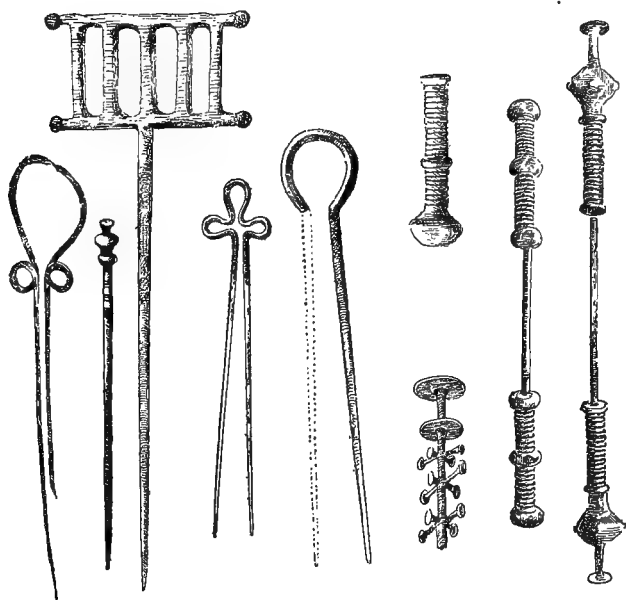


Fig. 54.—ORNAMENTAL BRONZE PINS (3).

The discussion was brought to a close by Dr Hoernes, who remarked that though Glasinac was now poor in agriculture it might not have been so in former times. At all events it was then, as it still is, exceptionally rich in grazing-lands. Some years ago he entertained the idea that Glasinac was a *Campus sacer*,

but he had since given it up. The district occupied an important strategic position between the Adriatic and the Danube. This fact was corroborated by Mr Ballif, who had recently traced the Roman road from Sarajevo through Glasinac to the Drina, as well as a

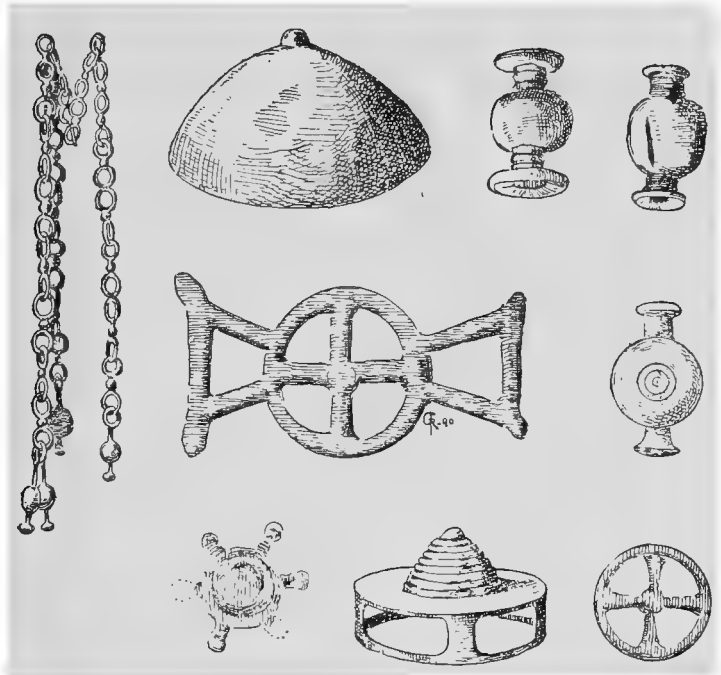


Fig. 55.—VARIOUS BRONZE OBJECTS (†).

side branch to Domavia, and had proved from its structure that it had been a main thoroughfare. Dr Hoernes did not think there was any mystery at all about Glasinac. It was merely rich in burials, but not exceptionally so, as he had seen them in equal abundance in several other localities, as, for example, in

the neighbourhood of Višegrad, Foča, Plevlje, &c. At Imocki, between Mostar and Ljubuški, the tumuli were as numerous as at Glasinac, but larger and more diffi-

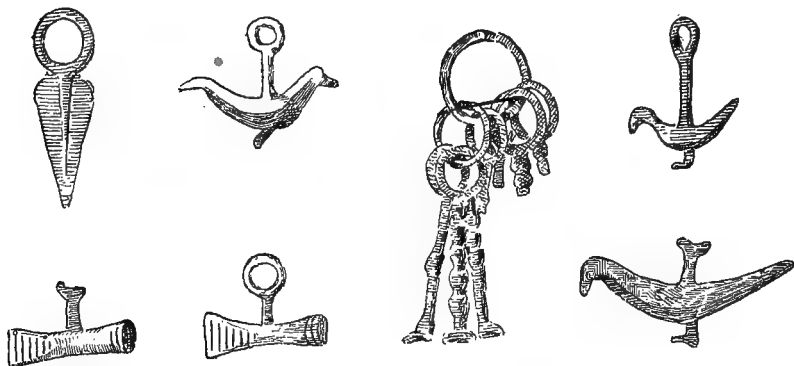


Fig. 56.—BRONZE PENDANTS (†).

cult to explore. On the road from Ragusa to Bilek, Gacko, and Foča, they were also to be found on the barren Karst, but not in such striking numbers.

B. THE NECROPOLIS OF JEZERINE.

In 1890, while some workmen were searching for stones for the construction of the now newly-built Oriental Orthodox Church of Pritoka, situated 6 *kilomètres* to the east of Bihać, on the road to Petrovac, they came upon nine human interments, eight burnt and one unburnt, containing grave-goods which were considered by the clergyman so interesting that they were sent to the Museum at Sarajevo (Figs. 60 and 61). Later on, three more burnt interments were found which

yielded similar remains, and ultimately led to the investigation of the locality by the Government. Systematic explorations were begun on July 16, 1892, by eight men under the direction of Mr Radimsky, and completed on the 26th August following. After the first week the supervision of the work was intrusted to Mr Peter Mirković, who, according to his chief's report, carried it out with great skill and precision. The cemetery was situated some 200 yards from the church, on a slightly elevated portion of land which insensibly merges into the plain of the Una. The graves were irregularly placed over a space measuring 60^m. by 34^m. The number examined is 541, making, along with the dozen previously opened, a total of 553, being 328 (59.3 per cent) burnt and 225 (40.7 per cent) unburnt interments.

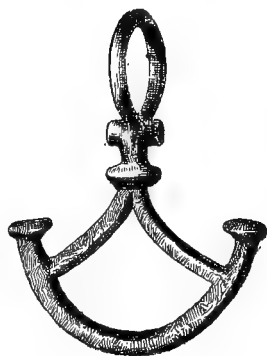


Fig. 57.—BRONZE ORNAMENT (3).

The monograph by Mr Radimsky on this remarkable cemetery is now published,¹ and it is illustrated by 588 figures in the text, 3 coloured plates, and a plan on which all the graves are numbered and shown in their relative positions. By a convenient system of signs one sees at a glance the character of each burial, and in the case of simple inhumation an arrow shows the direction in which the body lay. The peculiarities

¹ Wissen. Mitt., vol. iii. pp. 60-218.

and contents of each grave are described and illustrated separately. Indeed a more comprehensive and masterly report of a special archæological find I have seldom seen.

Relics were sometimes found without being associated with any kind of burial, and at five different points throughout the sepulchral area remains of pyres were

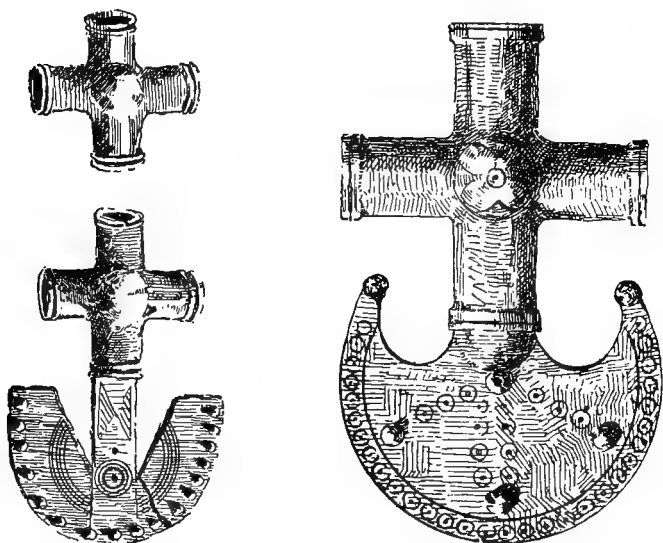


Fig. 58.—BRONZE ORNAMENTS—Right ($\frac{1}{2}$); Left ($\frac{2}{3}$).

exposed: only in three cases was there evidence to show that the body had been cremated in the grave itself.

The two kinds of burial were thoroughly interspersed among each other, both as regards extension and superposition, and their depth varied from 0.25^m. to 1.50^m., or even more in a few instances. As a rule,

the cremated remains were enclosed in urns, but sometimes they were laid on the earth and protected by stones. The urns were usually placed on the bare earth, but, in exceptional instances, they rested on a stone pavement or on a flat dish. They were either covered with a stone flag or a saucer-shaped lid of pottery, or altogether uncovered. Three of these stone

covers had Roman inscriptions. A few of the urns, supposed to belong to later times, were made of stone. They have a circular shape (except one which is square), and were always covered with a round lid, and often enclosed a clay urn which contained the interment. The cremated human remains appear to have been carefully separated from the ashes and charcoal of the pyre, and, when thus



Fig. 59.—BRONZE NECKLET ($\frac{3}{8}$).

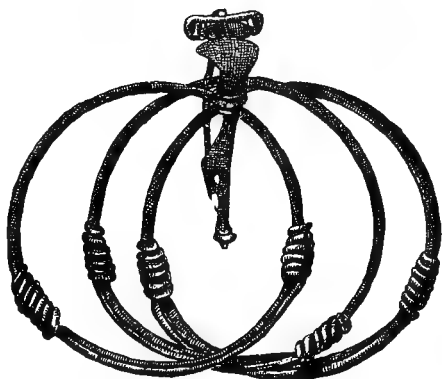


Fig. 60.—ROMAN FIBULA WITH THREE ARMLETS OF BRONZE ($\frac{1}{2}$).

collected and deposited in the tomb, the grave-goods—often including a small urn or shallow dish (the so-called food-vessel)—were placed along with them. Only in the case of the stone urns were the grave-goods ever found laid on the outside cover. In two instances an unburnt skull was discovered along with the cremated remains.

The skeleton, when ordinary burial was resorted to, lay on the back on the bare earth with a stone under

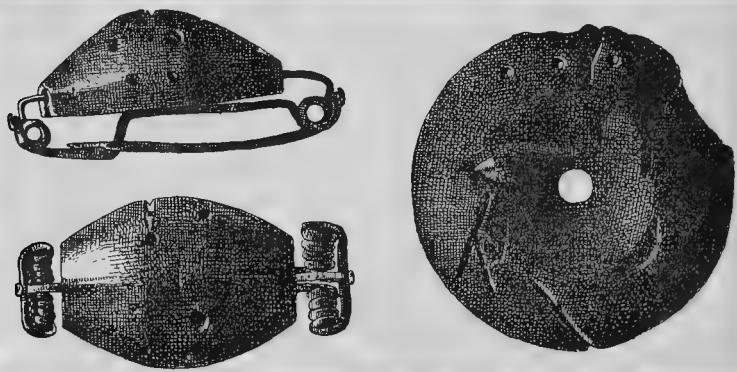


Fig. 61.—FIBULA ($\frac{1}{2}$) AND AMBER BEAD ($\frac{3}{4}$).

the head. The direction of the body was, in 75 per cent, with the head to the north, in 12 per cent to the east, and in 7 per cent to the south. The few remaining bodies lay in other directions, or their position was not determined. In whatever direction or position the body was placed, prone or face upwards, the hands were always stretched alongside it; and the grave-goods occupied the same place in respect to it as they were worn by the living. Above the head was generally placed a small vessel of clay or bronze.

Without counting the urns, 193 burnt and 202 unburnt interments were accompanied with more or fewer grave-goods.

These relics were made of various materials, and distributed among the graves according to the following table:—

OBJECTS.	Burnt Interments.	Unburnt Interments.	Not in Graves.	Total number.
<i>Iron.</i>				
Swords	3	...	...	3
Knife-sword	1	1	...	2
Knives	11	6	1	18
Spurs	1	2	...	3
Fibulæ	2	3	...	5
Armlets	2	1	...	3
Diverse rings, and a nail	2	1	1	4
<i>Bronze.</i>				
Needles	8	2	...	10
Pincers	19	2	...	21
{ Hallstatt fibulæ	2	9	...	11
{ Late do. do.	3	20	...	23
{ Early La Tène fibulæ	6	12	...	18
{ Middle do. do.	29	13	...	42
{ Late do. do.	5	1	...	6
Two-spiral fibulæ	17	12	...	29
{ Early Roman Provincial fibulæ	22	1	...	23
{ Roman fibulæ	4	1	...	5
Bow-shaped fibulæ without pin attached	1	53	...	54
Chains, wire pendants, &c.	2	29	...	31
Ornamented pins	15	6	...	21
Double-spiral discs	2	6	...	8
Necklets	1	1	...	2
Ear-rings	1	11	...	12
Ring armlets	14	8	1	23
Spiral arm-bands	4	12	1	17
Finger-rings	5	4	...	9
Anklets . . . . .	...	6	...	6
Rings (various kinds)	68	50	1	119

OBJECTS.	Burnt Interments.	Unburnt Interments.	Not in Graves.	Total number.
<i>Bronze—continued.</i>				
Disc-rings, discs, plates, and perforated bands	152	19	...	171
Round knobs	8	11	...	19
Cross-shaped knobs	59	21	...	80
Beads	3	1	...	4
Pendants	11	64	...	75
Diverse objects, spiral tubes, buckles, &c.	11	21	1	33
<i>Silver.</i>				
La Tène fibulæ	3	...	...	3
Chains (different kinds)	8	1	...	9
Arm- and finger-rings	3	...	...	3
Diverse rings, beads, pendants, &c.	18	3	2	23
<i>Tin (or White Metal).</i>				
Disc ornaments (2) pendant	2	1	...	3
<i>Amber.</i>				
Disc ornaments	1	6	...	7
Beads	661	617	3	1281
<i>Glass.</i>				
Arm-ring	1	...	1	2
Beads (enamelled)	20	39	...	59
Do. (blue)	1247	242	2	1491
Do. (yellow)	141	128	...	269
Do. (white)	370	8	...	373
Do. (green)	12	11	...	23
<i>Bone.</i>				
Beads, discs, one hollow cylinder, and horn handles	16	8	...	19
Teeth	5	4	...	9
<i>Vitreous Paste.</i>				
Red beads and discs	22	...	...	22
<i>Stone.</i>				
Disc and fragment	2	...	...	2
<i>Clay.</i>				
Spinning-whorls	2	...	...	2

Rearranging the relics according to the materials of which they were made, and counting undetermined objects, Mr Radimsky gives the distribution of these materials as follows: Iron was found in 66 graves; bronze in 331; silver in 9; tin in 3; amber in 109; glass in 71; bone in 17; vitreous paste in 3; stone in 2; and a clay-whorl in 2.

The so-called swords are short one-edged weapons, the longest of the three being only 16 inches in length. They, apparently, had handles of wood or horn attached by rivets, but no trace of the material now remains. Similar blades have been found in Hallstatt and St Michael in Carniola.¹ The only difference between them and the knife-swords is that the latter are only about half the length of the former. The characteristic La Tène sword is wanting, and we may note also the absence of lances. Somewhat startling is the presence in this collection of a couple of strike-lights—"steels"—not unlike those that may still be seen used by the peasants of Scotland. Mr Radimsky states that a similar implement has been found among the Roman remains recently discovered at Ilidže. Lindenschmit also figures two from Merovingian graves.²

Bronze was the predominant metal used in the manufacture of ornaments, which, as may be seen from the classified list, are numerous and varied. Among them the fibulæ are of the greatest importance, inasmuch as we have a large number of the various intermediate

¹ Mitt. der Anth. Gesell. in Wien, vol. xviii. p. 230.

² Alterthümer unser heid. Vorzeit, Bd. iv. Taf. 40, figs. 7 and 8.

forms which were evolved in this locality during the interval between the earliest Hallstatt and the Roman periods, representing an unbroken continuity of some

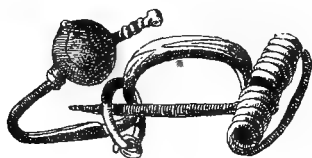


Fig. 62.—BRONZE EARLY LA TÈNE
FIBULA ($\frac{1}{2}$).

four or five centuries. Of the 157 fibulæ collected, 95 are assigned to the La Tène civilisation. Roman fibulæ are too well known to require illustrated examples here, but a few of the special

forms may be given. Fig. 62 is an early La Tène type.

Of peculiar interest are the 29 specimens having a cross band of spirals at both ends (Fig. 63). The bow is either adorned with a row of amber or glass beads or with elegant convolutions of the stem itself (Fig. 64). Another form, which seems to be characteristic of Jezzerine, is represented by Fig. 65, and of which no fewer than 54 examples have been collected. It is the ordinary bow-fibula of earlier times, with the peculiarity of having the pin unattached.

The very remarkable fibula (Fig. 66) is merely the *Certosa fibula*, having the turned-up foot converted into a ram's head, and the head into that of an ox, while the stem passes through an ornamented piece of amber.

Among the other relics may be noted a twisted torque and a necklace made of ten large oval rings connected by small chains.

Anklets were found on three occasions with unburnt interments; and it is worthy of note that they occur always in pairs, while armlets are generally single.

Clasps, bands, and ornamental studs for girdles were distributed among both kinds of graves. These were sometimes ornamented with human and animal forms.

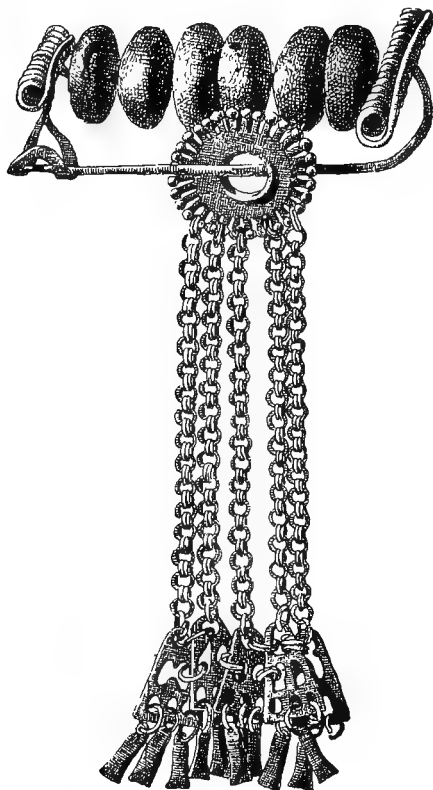


Fig. 63.—BRONZE FIBULA WITH ROW OF AMBER BEADS AND
CHAIN PENDANTS ($\frac{1}{2}$).

Ornaments made of silver are comparatively rare, being confined to eight graves. Among them are five small La Tène fibulæ, a wire armlet, portions of chains,

beads, a button, and a few pendants. One of the pendants had been gilt, and two are in the form of a human head.

Of the three specimens of tin, one is a pendant ornament in the shape of a human foot.

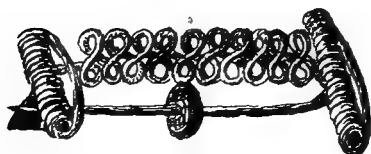


Fig. 64.—BRONZE FIBULA WITH COMPOUND SPIRALS AND AN AMBER BEAD ($\frac{1}{2}$).

A special feature of this necropolis is the number of amber and glass beads—the latter being of various forms

and colours—which it has yielded. Among the other glass objects there is a remarkably fine circular bracelet externally ornamented with flutings along the circumference.

From a vast quantity of broken urns and other vessels about 100



Fig. 65.—THE JEZERINE FIBULA ($\frac{1}{2}$).

have been restored.

A few dishes are wheel-made, presumably Roman, and others are supposed to be of Greek origin; but the great majority, representing

many forms and sizes, are hand-made.

Of the osseous remains from Jezerine only eight skulls were sufficiently well preserved to supply cranial measurements. According to Dr Glück, they resemble those from the tumuli of Glasinac in being large and

capacious, but differ from them in having a smaller breadth towards the frontal region. From their cephalic indices he classifies three as mesocephalic and five as brachycephalic.

Two fragments of flat stones have a few incised letters, evidently portions of Roman inscriptions.

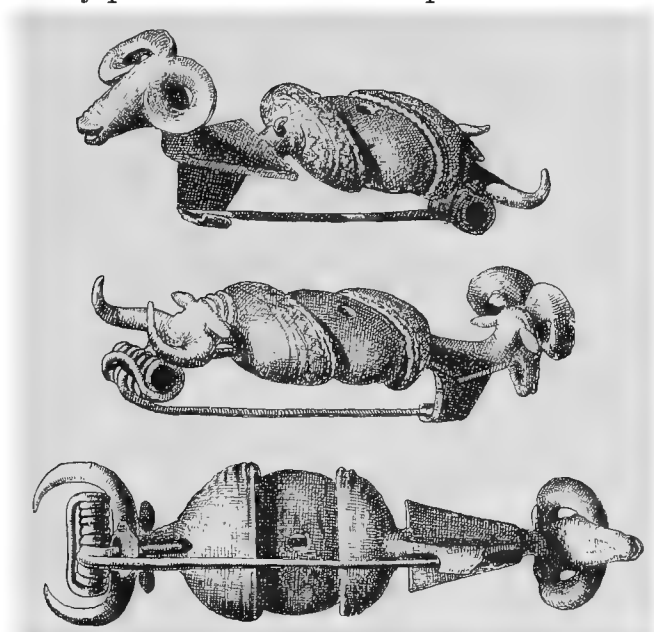


Fig. 66.—BRONZE FIBULA WITH TWO ANIMAL HEADS AND A BODY OF AMBER ($\frac{1}{2}$).

A third fragment is of special interest in having the figure of a helmeted warrior, holding a spear in the right hand, deeply incised on it. It forms the corner of a rectangular slab, which probably originally stood as a *stèle* or headstone. The accompanying illustration (Fig. 67) is a reduced copy of that in Radimsky's mono-

graph, but Dr Hoernes¹ gives in the same volume a photographic representation of it. In some critical remarks on this sepulchral monument the latter char-



Fig. 67.—PRE-ROMAN GRAVESTONE (about $\frac{1}{2}$).

acterises it as a pre-Roman gravestone, and assigns it to the late Hallstatt or early La Tène period.

¹ Wissen. Mitt., vol. iii. p. 516.

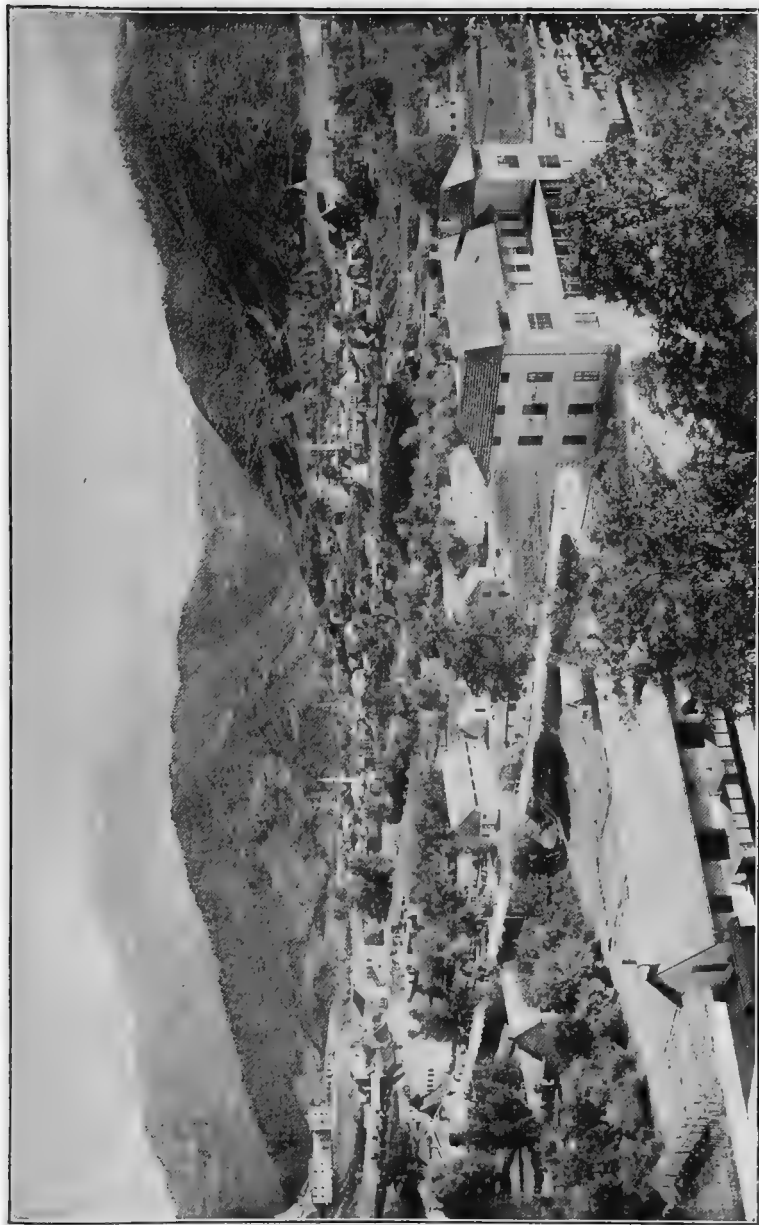
CHAPTER VI.

MOSTAR AND ITS NEIGHBOURHOOD.

FOR the homeward journey we had a choice of two routes—either to return *viâ* the Danube, the way we had come, or, in accordance with our original intention, to cross the Dinaric Alps by the recently constructed railway to Metković on the Adriatic, and thence by one of the frequently plying boats to Trieste or Fiume. Had the selection depended merely on the attractions presented by these respective routes there could have been no hesitation in the matter, as unquestionably the latter was the more interesting of the two. But sinister rumours of the great heat then prevalent on the other side of the mountains were just sufficiently alarming to throw in a disquieting element as to the prudence of carrying out this part of the programme. However, after deliberation with some other members of Congress, it was decided to run all climatological risks, and so the Adriatic route was finally fixed upon. When the party mustered at the railway station, we had the pleasure of finding among our *compagnons de voy-*

age M. and Madame Reinach, Von Fellenberg, Montelius, and Pigorini. Dr von Thallóczy and a few local members were also going part of the way, and, as some friends had come to see the strangers off, the farewell greetings were of the warmest and liveliest description. Mr Hörmann, to whose excellent management the Congress owed much of its success, was most indefatigable in his attentions, and spared no effort to secure the comforts of the party so long as they were to be on Bosnia-Herzegovinian soil.

We left Sarajevo at 11.40 A.M., August 22d, and, quickly traversing the plain of Ilidže, entered the outliers of the Dinaric Alps by the bed of a stream which comes winding from the higher hills beyond. As the train crept along the declivities, or swept round the terminal ends of the side valleys, we had some charming peeps of the country—village, farm, forest, rock, and peak blending in ever-changing combinations. About twenty-two miles from Sarajevo we reached the foot of the Ivan Sattel, which forms the watershed between the Save and the Narenta. Here the conductor looked into the compartments and informed their occupants that the windows must for a time be closed. Shortly afterwards we passed on to the rack-and-pinion portion of the line—a fact which, but for the slanting position of the carriage, might have been unobserved. Then followed a succession of tunnels, deep cuttings, and chasms spanned by iron bridges of peculiar construction—the arches being turned downwards. The highest point—2867 feet above sea-level—was attained at Ivan station



immediately after emerging from the Ivan Sattel tunnel. About three-quarters of a mile from this station there is a village of wooden houses ensconced within the sombre shade of a beech-forest, and much frequented in summer on account of the magnificent mountain scenery in its immediate environments. The Ivan tunnel is over 700 yards in length, and before reaching Konjica on the Narenta—a distance of some thirteen miles—other five tunnels, from 100 to 200 yards in length, were encountered. The descent afforded some striking glimpses of the barren Karst mountains of Herzegovina, and especially of the peaks of the Prenj group, which loomed right ahead of us. As we turned into the Narenta valley the most noticeable change in the scenery was the appearance of the Spanish chestnut among the forest trees. Konjica is charmingly situated on both banks of the Narenta, and for its size, some 1600 inhabitants, makes a great display of mosques, minarets, and other conspicuous-looking buildings (Plate XVII.). The river, having previously traversed rough ground, here assumes a placid appearance, and is crossed by a fine antique bridge of several arches. Now that the railway has brought the town in direct communication with Sarajevo and Mostar, it is expected that it will speedily retrieve some of the trade prosperity it possessed in pre-Turkish times. From Konjica the iron-way follows the right bank of the Narenta through scenery of the most romantic character, and after crossing a few turbulent tributaries by handsome iron bridges, especially that over the entrance to the magnificent gorge of

the Rama, it sweeps round to Jablanica, where it takes a southward direction.

Jablanica lies in the hollow of a rocky basin in the midst of vineyards, orchards, clumps of green foliage, and patches of cultivated land. But it is in the contemplation of the surrounding amphitheatre of fantastic peaks, fringed with streaks of snow of dazzling whiteness, that the real grandeur of the locality comes home to one (Plate XVIII.). In a glance the eye bounds from vegetative luxuriance to arid desolation. To scan the horizon in this world of rocks is to follow a sprawling outline far up in the blue vault of heaven; and in the contorted shapes of the weathered sunburnt crags and scars half-way up, one is excused if he sees the ruined castles and forts of a race of antediluvian giants. When the works of these titanic rock-carvers come to be widely known, Jablanica cannot fail to become a rendezvous for the true lovers of the sublime in nature. The town contains a good hotel under Government surveillance, and is the starting-point of the diligence route to Jajce—a journey proverbial even in Bosnia for its splendid scenery. The road ascends the wild glen of the Rama, and then over a lofty ridge to the valley of the Vrbas. The whole neighbourhood as far as Konjica is rich in Bogomile gravestones and other medieval antiquities. The tenets of this unfortunate sect have survived here longer than anywhere else, and, indeed, it is said that they still lurk as secret and sacred traditions among some families. This is said to be the reason why the Mohammedan women of Jablanica have never adopted



PLATE XVIII.

JABLANICA.

the custom of veiling their faces, like the other Bogomile converts throughout the provinces. Sceptics, however, find a more ready explanation in the fact of their being the owners of exceptionally pretty faces. The inhabitants seem to have little of the Slavish blood in their veins, as their dark features betray a Southern origin. In Jablanica one sees for the first time a purely Herzegovinian town. The wooden houses, so common in Bosnia, entirely disappear, and give place to substantially built stone dwellings.

Shortly after leaving Jablanica we came to the entrance of the famous Narenta defile (Plates XIX. and XX.), a rocky gorge, some twelve miles in length, separating mountains which rise on each side to the height of 6000 or 7000 feet. Almost at the commencement of the defile the river is crossed by a splendid iron bridge, and the line is continued for a few miles on the left bank by a series of short tunnels, galleries, and viaducts. It then re-crosses to the right bank, which it follows to its termination at Metković. For a distance of about a mile and a half the precipitous banks of this waterway are almost perpendicular, rising to a height of over 1000 feet, but yet in one place the river-bed is so narrow that a sudden spate raises the level of the water some 40 or 50 feet. The denuding power of the current has worn down every obstacle so uniformly that there are scarcely any waterfalls along its course—at any rate not sufficiently large to prevent flat-bottomed boats laden with fruit from going down all the way from Konjica to Mostar, a mode of conveyance

customary in pre-railway times. From its steep banks now and again a mighty spring gushes forth and dashes its contents in foaming stream or cascade into the Narenta. Of these the Kommadine-quelle is the largest. It is seen on the right side emerging from under a couple of strongly built stone arches over which the carriage-road passes. It is not till the traveller escapes from the overhanging rocks of this marvellous defile that he realises the complete transformation that has taken place in everything around. The dark sylvan scenes of Bosnia have given way to dry barren rocks, and, with the exception of a few favoured localities and some green fringes along the water's edge, there is little sign of vegetation.

It was dark by the time we reached Mostar station, and so there was a little bustle before our party and baggage got accommodated in the hotel omnibus. On arrival at the hotel we found our rooms already engaged (thanks to the foresight of M. Hörmann), and so we speedily met in the verandah of the restaurant, where supper was served. Afterwards, when the temperature became modified to a more endurable pitch, we essayed a stroll into the town under a glorious moonlight. But the streets were too lonely to entice us far, and so, returning to the grounds of the hotel, we smoked cigarettes and discussed how to see Mostar and as much of its environments as the fierce sun of the morrow would permit of.



PLATE XIX.

THE PRENJ MOUNTAINS NEAR JABLANICA.

Mostar.

“Half oriental, half Italian, and altogether Herze-govinian, picturesque and monumental. Every stone declares war and fighting. No city in the world proclaims so loudly as this one does that she owes herself, her origin, her very being, to battle, war, fortifications, and mighty aggression.” Such are the words with which Mr Asboth, the author of an ‘Official Tour through Bosnia and Herzegovina’ shortly after the occupation of the provinces by the Austro-Hungarians, opens a chapter on Mostar.

To these pithy words—descriptive, truthful, and exhaustive—I have little to add. During a stroll along its one long thoroughfare on the left bank of the Narenta, one sees among the houses abutting on the rocky bed of the river a sprinkling of decayed keeps, turrets, bastions, and prison-like enclosures—all grey and hoary as the surrounding Karst mountains. Just where the protruding elbow of the Podvelež begins to recede towards the south-east the distribution of houses acquires a greater breadth, and a second or third street may be seen running more or less parallel to the former. In this upper portion of the town stands the large handsome Orthodox cathedral, conspicuous by its tall spires. The Catholic church is on the other side of the river; and, of course, mosques are everywhere.

But who cares to look into the interior of these buildings, whether medieval or modern? Time this

morning was too short to be wasted on details which merely re-echo the already well-known tale of war, strife, and religious persecutions of Turkish rule. Nor is there anything very novel to be said about the people of Mostar. With a physiognomy indicative of a Southern* origin, they are, and have always been, impulsive, proud, and combative. Their manners, and even the structure of their houses, betray an Italian influence. In addition to the usual multifarious objects exposed in the bazaar and in the open shops along the main street, fruit and vegetables hold a prominent place. Fruit worth eating can hardly be got in Sarajevo, but here we purchased over a dozen large delicious figs for 10 kreuzers, and grapes equally cheap.

A considerable portion of the town lies on the right bank of the Narenta, some of the houses creeping far back along the road to the Radobolja-quelle. Immediately to the south of the *Polje*, which forms the embouchure of the stream issuing from it, rises the elevated ridge of Hum, whose bold front protruding on the bed of the river affords a magnificent view of the town and the two adjacent *Polje*.

To the passing tourist there is really but one lion in the town of Mostar—viz., its so-called Roman bridge (Plate XXI), remarkable alike for boldness, elegance, lightness, and durability. It comes as near solving the famous mathematical problem worked out by the honey-bee in the construction of its cell as anything of the kind I have ever seen—viz., how to produce a maximum result with a minimum amount of material.



THE NARENIA DEFILE.

Since the erection, in 1882, of the modern iron bridge all heavy traffic on the old one is forbidden, and only foot-passengers are allowed to cross it. To gaze from the top of this bridge at the water of the Narenta as it swiftly glides past in its rocky channel beneath, is a favourite pastime of the philosophic idlers of Mostar. I do not blame them. Mustapha Hilmi Muhibbic, writing in 1893, thus refers to this bridge:—

Die alte Brücke in Mostar gilt mit Recht für eines der hervorragendsten Bauwerke der Hercegovina und beschäftigt als solches auch vielfach die Gedanken des Volkes. Wer den "Garten Edens" (so nennt das Mostarar Kind, der berühmte Dichter Derwisch-Pascha, seinen Geburtsort) betritt und die Brücke das erste Mal erschaut, der wird hingerissen von der kühnen Wölbung ihres Bogens; und wer das erste Mal seinen Blick von der Brücke hinabsendet, der wird von Schauer ergriffen über den Anblick der tief unter ihm dahinbrausenden Narenta.¹

An archaic inscription in the middle of the arch reads "*Kudret kemeri*" (the arch of Almighty God).

Though now proved to be of Turkish origin, dating from the time of Suleiman II. (1566), it is not unlikely that a Roman bridge preceded it on the same site, and so gave rise to the tradition that this one is of Roman construction. Some say that in Roman times there was a wooden bridge here, and that the two towers still standing, one at each end, were constructed for its defence. The arch, which is only faintly pointed, has a span of 89½ feet, and a height of 61 feet above the ordinary level of the water. The

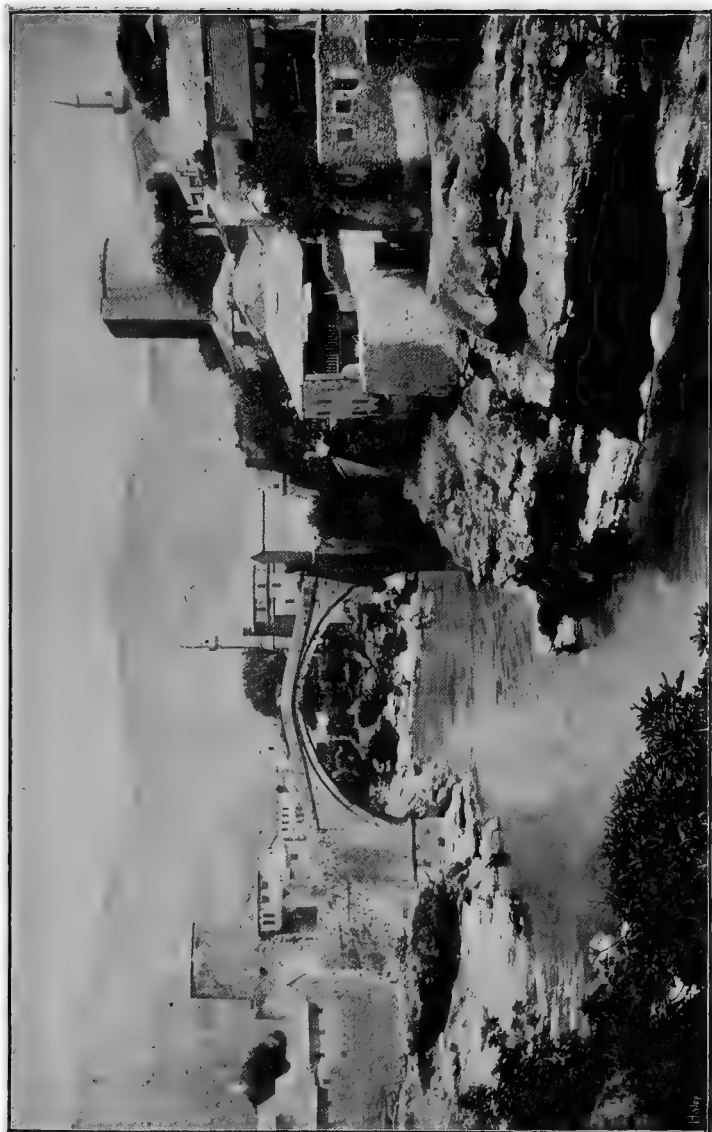
¹ Wissen. Mitt. aus Bosnien, &c., vol. i. p. 510.

breadth of the bridge is only 14 feet 9 inches. By way of comparison, I may state that each of the four arches of the Dean Bridge, Edinburgh, has a span of 96 feet. The famous Ponti di Rialto consists of one marble arch of 74 feet span.

A tradition exists among the Mohammedan natives to the effect that the bridge, as soon as it was completed, fell in again, and that this mishap was repeated until, on the advice of the Villa, the fairy of the mountain forest, a pair of lovers had been walled up in the foundations. Similar traditions are current throughout the country in regard to many other public buildings. A shocking suspicion that these survivals of superstition may have some basis of truth creeps over one when he learns that, as late as 1870, the corpse of a child was ceremoniously buried under the foundations of the bridge at Trebinje. Verily the ladder of human civilisation contains some strange rungs!

The Source of the Buna.

After our morning stroll the programme for the rest of the day was finally adjusted at breakfast, served under cover of the foliage of a wide-spreading tree in the grounds of the hotel—for even at 8 A.M. it was a relief to be in the shade. The result of our deliberations was that the entire party—now reduced to six persons by the early departure of Dr Montelius—would visit the Buna-quelle in the forenoon and the Radobolja-quelle, which supplies the town of Mostar



THE OLD BRIDGE OF MOSTAR.

with water, in the afternoon. To the former we started at once in a couple of *fiacres*, each drawn by a pair of sturdy ponies whose normal life-element seemed to be broiling sunshine. The first item of the journey was to drive direct to Blagaj, a village in the farthest-away corner of the Bišćepolje, from which the Buna-quelle is readily accessible on foot in about five minutes (Plate XXII.). Passing amidst a crowd of busy artisans through the main street of Mostar, both sides of which were lined with open booths and workshops, we soon cleared its last straggling houses. Just beyond them, and between us and the Narenta, we caught sight of a group of dilapidated buildings of considerable dimensions—the Turkish barracks destroyed during the War of Occupation. In striking contrast to these ruins are the military quarters of the present Government, seen on the left, with shooting-ranges on the heights above. Farther along we passed in front of the Government vineyards and a model training-school for the cultivation of fruit. The vineyards cover an area of 32 hectares of land, and the array of buildings erected for carrying on these industries reminds one of western European enterprise. We were informed that the undertaking, at first instituted as an experiment, is now a commercial success, as well as a great boon to the inhabitants. The wines produced from these vineyards are considered excellent and in great demand. During the rest of the way the most attractive object was the ruined castle of Stjepangrad, picturesquely situated on the last peak

of the Podvelež. It stands 600 feet above the plain, on a spur of the same rock from under which the Buna emerges, and, as if to enhance its grandeur, a couple of eagles were seen planing and circling with great majesty high above its hoary walls. The following remarks* by Mr Asboth on this interesting vestige of medieval times may be read with advantage :—

An extensive, many-towered royal castle, built many centuries ago, at the time when the Counts of Chlum or Chelm, who ruled this land, were at the height of their glory. Built from the stone found upon the spot, and long since transferred—nay, centuries ago—from the hands of men into those of Nature, this vast mountain fortress has, in form and colouring, grown so much like its rocky foundations that from below it is hard to distinguish where the handiwork of man begins and ends. The solid rock looks like bastion and tower, the ruined watch-tower and bold walls like a heap of stones and cliff. Rough and desolate and dead does the fortress seem, though once so gay with princely glory, like the sunburnt, torn, bare peak itself, which it crowns ; like the mountain, it stands there, however, even in its decay, in massive grandeur, proudly and defiantly, upon its unapproachable, dizzy heights.

From this fortress the mountain-side falls sheer down at a sharp angle with those which meet it here. From the perpendicular sides huge blocks project and threaten to crush any one who shall dare to roam here. And that their threat is no empty one is amply proved by the fragments, blocks, and moraines which cover the ground far and wide, and constantly force the rushing torrent into new and tortuous channels. And to this the solitary mosque, built into the narrow angle, and now lying dashed to pieces by falling masses of rock, also testifies. Ali Pasha Rizvanbegovitsh built it, and destiny crushed his work as it crushed him himself. That ancient and smaller building at the back of the ruins is all that remains : it conceals the grave of a Turkish saint, and is a favourite place of pilgrimage of the



BLAGAJ AND THE RUINS OF STJEPANGRAD.

Mohammedan population. A sword and war-club are painted on the outer wall; in the interior, in the dark vault, there rest in two simple, carpet-covered wooden coffins the saint and his faithful servant. Upon the wall hang the sword and club themselves.

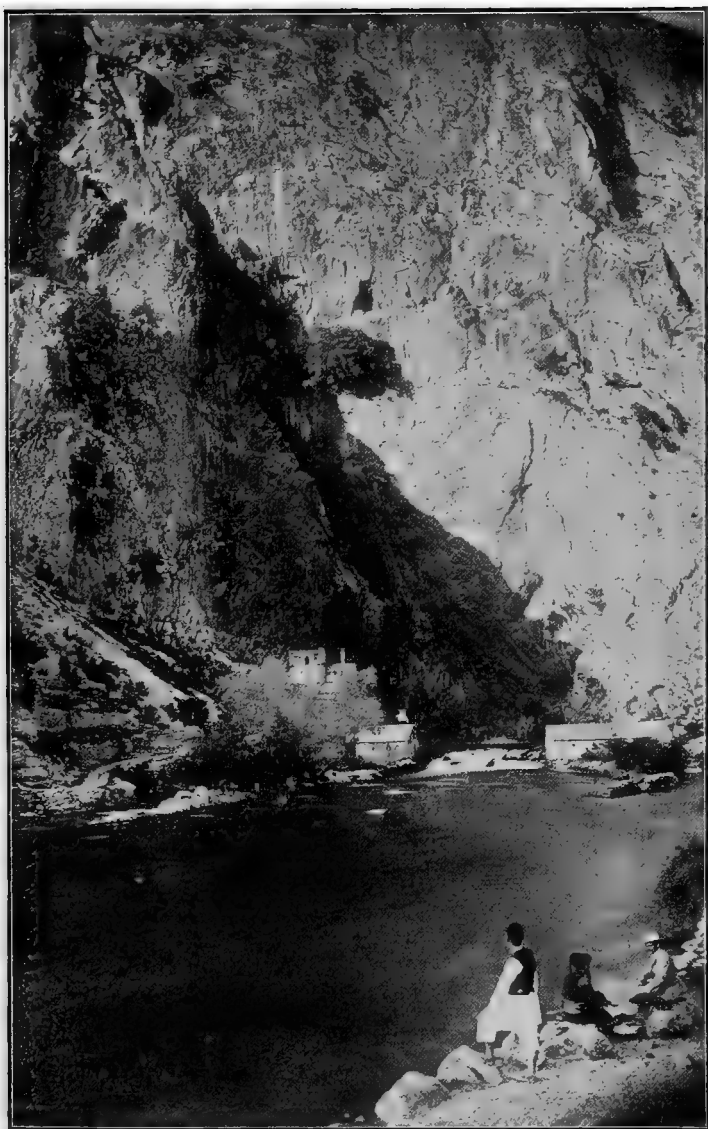
This saint was a hero, who fell fighting for Islam; these were his weapons. The watchman who dwells near the vault, each evening places a water-jug and a towel within, for the dead saint still nightly performs his religious ablutions. Morning after morning the towel is damp, and the water in the jug has diminished. Among these projecting, moss-grown crags, eagles build their nests, and fly about high overhead, the sentinels of Step-anograd; and from the jutting rocks long points of fantastic drop-stone hang down, genuine stalactite ornaments, just like those in a Moorish building.

Close by the shattered mosque an enormous cavern opens into the wall of rock. It is richly covered both outside and inside with these stalactites; and as we gaze into the cavern from a wooden balcony belonging to the mosque, a mystic, fairy-like, bluish light glimmers within: the bottom, however, which is large enough for a ball-room, is a deep, quiet mirror of glass, bright, blue, and motionless as steel. From out of this still mirror of water springs the restless Buna stream, full of red-and-silver trout; and if one casts a stone into the cavern, whole armies of pigeons fly up, fluttering in fear before the eagles who are circling above.¹

The Dubrawa ridge strikes off from the Podvelež to the west, with a bold and almost straight front looking towards the Bišćepolje, and in the angle thus formed lies the source of the Buna, so graphically described in the above quotation. Leaving the carriages at Blagaj, now a mere village, but in pre-Turkish times the capital of the district, we proceeded on foot to inspect this

¹ Bosnia and Herzegovina, pp. 264-266.

curious sight. By a road between a massive hedge of wild pomegranates and a canal for watering some richly stocked gardens we reached, in a few minutes, the bank of a broad river, sparkling and clear as crystal. Farther along we passed a corn-mill whose clattering wheels were propelled by the first broken current from the great pool. A few yards from the mill there are some ruins, and beyond them a white mosque-like building which entirely blocks the view of the cavern. M. Reinach and I, who were in advance of the party, stood for a moment in front of the house wondering where to go. From the little court where we stood a stone stair almost hidden with walls leads down to the water's edge, and here we noticed a rather comely woman in the act of filling a couple of buckets of water. Coming upon her unawares, she seemed greatly startled by our presence, and at once hurried up with her buckets and waddled to the door with extraordinary energy. As soon as she got inside the house, the door of which she opened by a violent kick, and had deposited the buckets, she turned fiercely round and closed the door with a bang. The expression of mingled scorn and anger which flashed from her dark eyes, as she cast a furtive glance at us, was quite appalling, and I wondered what it was all about. The poor woman it seems had been caught without her veil, and the fact that the *Giaour* had cast eyes upon her was a dreadful misfortune. We soon detected a small side-gate which led to the wooden balcony overhanging the pool, and from this excellent view-point had the satisfaction of gazing into the yawning cavern,



THE SOURCE OF THE RIVER BUNA.

PLATE XXIII.

now only a few yards ahead of us (Plate XXIII.). The balcony contained seats and a table, and when all the party assembled coffee was handed round by a handsome young fellow, the occupier of the house, and probably the husband of the *bare-faced* lady with whom M. Reinach and I had such an amusing *rencontre*.

The accuracy of Mr Asboth's description was there and then verified to the very letter. We had already seen and watched a couple of eagles circling high above the lonely ruins of Stjepangrad as we drove along the dusty plain; and here, without any stone-throwing, we saw numbers of pigeons quietly gliding in twos and threes from the depths of the cavern, apparently unaware of our presence till they came outside. Nor did the red-and-silver trout fail to exhibit themselves as, now and again, one turned on its side, as if to show off the variegated hues of its glistening scales. Half-way up the overhanging precipice was a large leafy fig-tree, mysteriously holding to the bare rock with its gnarled stem and twining roots without one visible particle of soil to nourish it. But more striking than anything to me was the reflection of the rocks in the pool below. The points thus seen were far more beautiful than the reality as they appeared clothed with the deep azure-green of the water.

The Buna is supposed to be the continuation of the Zalomska, which disappears into a mountain-cleft on the border of the Nevesinsko-polje, some thirteen miles east of Blagaj; in proof of which the following story is recorded. One day a shepherd from Nevesinje threw his

staff into the Zalomska, and his father, a miller at Blagaj, accidentally found it in the Buna. Father and son then determined to put this discovery to a profitable use. The shepherd each day killed a sheep and threw it into the river; this the father next day picked up in the Buna. The shepherd, when questioned about the mysterious diminution of his flock, always blamed the wolf; but at last the proprietor became suspicious and watched him. One day he detected the shepherd in the act of throwing the sheep into the river; and the next morning the miller at Blagaj, instead of the usual sheep, fished out of the Buna the body of his son.

The Mostar Water Supply.

The account of the drive to the Radobolja-quelle will not occupy us long. The stream of this name issues from a cavern at the foot of a lofty ridge called Cim, some seven miles to the west of Mostar. In size it is not to be compared with the Buna, but it is sufficient to mark its entire course with the greatest vegetative luxuriance. Among a number of fruit-trees may here be seen the fig and the almond tree. Before the stream falls into the Narenta, close by the old bridge, its waters become almost dissipated in the irrigation of the surrounding gardens. But the greatest demand on its usefulness is to supply the people of Mostar with refreshing water; and for this purpose pipes have been laid from the mouth of the cavern all the way to the town. At the present time the entrance to the cavern

is filled up with angular stones, and only one small hole remains, through which the water is visible. The pipes are underneath these blocks of stone, and the surplus water percolates through them into the former bed of the stream. The effect of abstracting such a large volume at the fountain-head becomes strikingly manifest by a conspicuous zone of dark withered aquatic vegetation on the larger stones in the bed of the now diminished stream.

I have not heard any suggestion as to the origin of the Radobolja. At no great distance from it on the south side of the mountains there lies an extensive plain called Mostarsko Blato—*i.e.*, the marsh of Mostar—which during the greater part of the year is an extensive lake and never altogether dry. This lake has no visible outlet, and its waters in the summer-time disappear through unseen channels or *ponors*. Possibly the underground course of the Radobolja may be one of them.

About 200 yards or so from the cavern there are some stone buildings, half buried in the earth, for regulating the supply of water into the pipes. Also, close by, a neat refreshment-room has just been erected, and the grounds around it are prettily laid out with walks, shrubs, and rockeries. The hill scenery and mountain walks in the vicinity add to the attractions of the locality, so that it is rapidly coming into repute as a fashionable place of resort. Here we lingered so long that before getting back to Mostar several twinkling stars became visible in the intensely blue vault above. But previous to this we beheld the grey ridges

of limestone bathed in a flood of golden light, and watched its changing hues till it insensibly vanished into moonshine.

Spinning seems to be a regular occupation of all shepherds and herdsmen in this district, several of whom we met driving home their herds and carrying about with them a distaff and spindle. They reminded me of an old cattle herdsman whom I once saw in the Highlands of Scotland busily exercised in knitting, dancing, and singing, while no doubt at the same time his eye wandered to his browsing herd. Groups of cottages dotted the roadside, and here and there were bundles of trimmed and assorted leaves of tobacco hung upon the walls to dry in the sun, preparatory to being sent to the Government factory.

The Narenta Valley.

The river Narenta, after finding its way through the mountain barrier of Karst to the south of Jablanica, passes through an alluvial plain (Bjelopolje) which stretches southwards as far as Mostar, a distance of about eight miles. This plain is formed by the rocky heights diverging to the left, and then again converging at Mostar. Here, on the east, the Podvelež protrudes its rugged slopes down to the river, and on the west the massive Hum rises from the water to a commanding height. But this encroachment of the Podvelež is only for a short distance, as it soon again recedes in another wide sweep to form the eastern boundary of the second

alluvial plain (Bišćepolje), which likewise terminates by a *rapprochement* of the hills. Through the southern barrier thus formed the Narenta has long ago forced a passage by a rock-cut channel known as the defile of Žitomislić. Thus, from the lower end of the defile of Jablanica to the commencement of that of Žitomislić, a distance of sixteen miles, there is a stretch of alluvial deposits which in form may be roughly compared to the figure 8. The point represented by the crossing of the lines is a short pass between the two *Polje*. It is here that the town of Mostar is situated, a position which commands the only gateway in this direction to the interior. Hence the importance of the situation, especially in the eyes of the Turks, under whose domination Mostar came into prominence. The Roman road from the Adriatic to Bosnia passed this way, and there can be little doubt that in pre-Roman times it was likewise the great highway for communications with the interior. Indeed, the whole district around Mostar is virtually strewn with the industrial and art remains of the various races who formerly inhabited it. But, independent altogether of its strategic advantages, the locality must have been at all times a favourite one on account of the rich agricultural lands in its vicinity.

Of the many points calling for the attention of the visitor, the story which the Narenta itself discloses of its past operations is by no means the least interesting. I have already described its gigantic work in excavating a passage through the mountains of the interior; and we now see before us how the excavated materials were

disposed of. These alluvial plains were at one time lakes, but now their beds have become filled up with the detritus carried down by floods from the mountains. The surplus water from them was also continually wearing down the rocky barriers which separated them, till ultimately, by the combination of these two processes, their entire drainage was effected. At Blagaj, on the south-east border of the Bišćepolje, I noticed portions of an old lake-beach at a considerably higher level than the present surface of the plain. There is a legend to the effect that the Žitomislić defile is the work of man's hand, executed for the purpose of draining the lake; and marks of the old water-line are said to be still visible on the surrounding hills, and even "iron rings are mentioned to which the dwellers on the shore of the lake fastened their boats." But this tradition must have originated in the brain of some one who had a glimmering of the geological changes the country has undergone, as the lake had disappeared long before man took to engineering channels of this magnitude. But it would be in existence until the river had excavated its bed sufficiently deep to carry off the accumulated waters of the Bišćepolje. This process was necessarily a very slow one; and it is not likely, even had man been on the scene during any period of the lake's existence, that he would have recognised the fact that any diminution in its area was in progress. The river Buna, whose entire bed lies within the boundaries of this ancient lake, would not have begun its course till the drainage of the latter

had been well-nigh completed. It would therefore be interesting to ascertain, if practicable, what amount of excavating work is to be attributed to the Buna during the shorter period it has been flowing.

The amount of detritus carried down by the Narenta and deposited in its successive *Polje* and delta proper is enormous. For a considerable portion of its course its bed is excavated in an ancient deposit of gravel, apparently that of a river of much greater volume than the Narenta of to-day. These old sedimentary and water-worn gravels have become in several places consolidated into a conglomerate so hard and tough that it seems to defy the ordinary weathering processes. At the lower end of the Jablanica defile the river may be seen flowing in a narrow channel between perpendicular banks, 10 or 20 feet high, showing in their clean-cut sections almost nothing but round white pebbles of a uniform size. They looked just as if they had been recently thrown down by a flood, and the wonder to me was how they kept together. But the wonder soon vanished when I came to experience the amount of hammering necessary to detach a pebble. The cementing element was a mere film not always filling the interstices. Sections of these ancient conglomerates are seen at the old bridge in Mostar, the span of which rests on this substance. But its composition here is somewhat different from that above described, in having more of the calcareous matrix and fewer pebbles. It also contains fossil shells, apparently of a marine species. A curious result of its consistency and dura-

bility may be seen a little above the town, where the Narenta runs into a number of narrow, almost subterranean channels excavated in the rock, leaving the intervening ridges as stepping-stones by which people are in the habit of crossing at low water.

This formation, however it may be accounted for by geologists, slopes towards the sea at the same uniform rate as the fall in the river, and its surface everywhere remains at a considerable height above the present bed of the river. In the narrower portions of the valley it is seen to occupy the whole space, resting unconformably on the limestone beds beneath. Its development in such masses suggested to me that the Narenta had been formerly fed by glaciers, but I am informed that no traces of glaciation have hitherto been observed in these regions. I may say, however, that while crossing the Dinaric Alps we saw some moraine-like deposits along the railway cuttings, in regard to which De Mortillet and Von Fellenberg differed, the former denying, and the latter affirming, their glacial origin. But, indeed, the whole district is bristling with geological problems not less novel than speculative. Few localities present, *prima facie*, more promising materials for determining, with some prospect of success, the chronological value of the geological phenomena of tertiary and post-tertiary times than the thirty miles of the Narenta bed which lies between Jablanica and the river Buna. A young active geologist who could spare a few weeks in spring or autumn would find it a splendid field for a holiday ramble. The excessive heat in

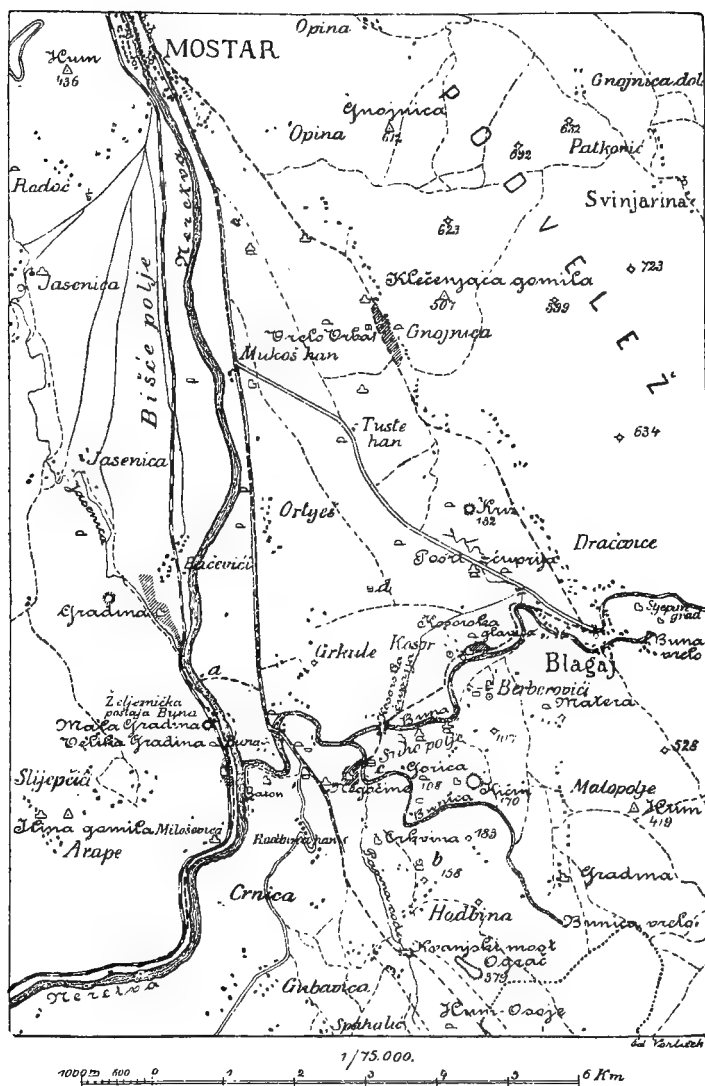
August prevented us from making any practical investigation, and I offer these remarks merely by way of directing attention to the subject.

Archæological Jottings.

As regards archæology we are, in the neighbourhood of Mostar, on classical ground. In the alluvial deposits around the town, or along the highways and byways leading to it, the keen eye of Mr Radimsky has recently detected numerous remains of the successive civilisations which have flourished in the district. The accompanying sketch-map (p. 196) will enable us to follow his footsteps in his archæological investigations over the Bišćepolje and its environments.

Starting from Mostar, we note as we pass along the west bank of the river, in the direction of the railway station at Buna, a great tumulus on a hill to the west of the village Rodoć, and, farther along, several other tumuli, of various sizes, scattered over the plain. In the vicinity of Jasenica are sixteen Bogomile grave-stones, some of which are ornamented with half-moons and stars—emblems originally emanating from the southern Slavs. Another interesting group of antiquities lies in the vicinity of Bačevići, consisting of a few Bogomile gravestones, four tumuli, a prehistoric fort subsequently utilised by the Romans, and the ruins of a Roman settlement.

The remains of the Roman settlement extend along the left bank of the Jasenica, in the angle formed by its



junction with the Narenta. Here various antiquities characteristic of Roman civilisation have been dug up from time to time, such as coins, pottery, tiles, fragments of sculptured stones, &c. In 1891 two sarcophagi were exposed, the largest of which measured 2^m. in length, 1.18^m. in breadth, and 0.85^m. in height. One side only was ornamented with sculptures. The heavy lid was in its place when the sarcophagus was uncovered, but the centre panel of the sculptured side had been rudely perforated, probably for the purpose of abstracting its contents, as only a portion of an iron sword was found in its interior. The other sarcophagus had also one side sculptured, but its lid had been previously removed (Fig. 68). Stones with Roman dressing and sculptures may be frequently seen in the walls of the houses of the village—a fact which accounts for the destruction of these remains.

Mr Radimsky states that, about 600^m. to the north of the Buna railway station, a Roman bridge, 100^m. in length and constructed of wood, crossed the Narenta; in proof of which he instances the holes in which the piles stood, some straight and some slanting, still to be seen in the conglomerate sandstone.

On the top of a hill, 200^m. high, near the station, there is a large stone tumulus (*Velika gradina*), and on the flanks of the same a stone fort (*Mala gradina*). The latter is an intricate structure, consisting of tumuli, primitive fortifications, and Roman buildings, the explanation of which seems to be that a prehistoric fort on this site had been subsequently utilised by the



Fig. 68.—A ROMAN SARCOPHAGUS.

Romans for their own military purposes. A glance at Fig. 69 shows the relative positions of these different structures. The ground on which the fort stands falls away precipitously on all sides, except on the north, where in pre-Roman times it appears to have been pro-

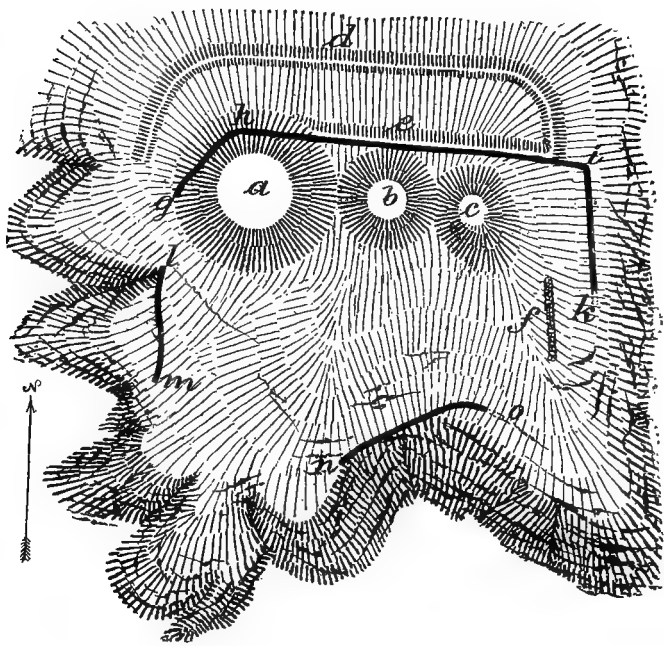


Fig. 69.—PLAN OF THE MALA GRADINA.

tected by an outer, *d*, and an inner, *e*, dry-stone vallum. Inside this are the remains of three stone cairns, *a*, *b*, *c*. When the Romans came to occupy the locality they fortified it by running a wall of stone and lime over and through these earlier structures, as indicated by the dark line *m*, *l*, *g*, *h*, *i*, *k*, *o*, *n*. This wall was from

1^m. to 2^m. thick, and stretched continuously across the neck, joining the fort with the rest of the hill, but elsewhere only in interrupted portions, as shown at *m*, *l* and *n*, *o*. In the mortar used in its construction, as well as in the interior of the enclosure, fragments of roofing-tiles were observed—thus proving the chronological sequence of the two occupations. To the south of this fort, for a distance of 500^m. or 600^m., the ground is strewn with indications of a Roman settlement.

On the left bank of the Narenta, and guarding the entrance to the defile, was another Roman settlement, the ruins of which have been traced on the south side of the Buna, in the angle formed by its junction with the Narenta.

About a mile north-east of this, the Buna is crossed by a handsome old bridge of fourteen arches, over which passes the highroad between Mostar and Metković (Plate XXIV.). This bridge is 111 yards long and 18 feet 6 inches broad. From it to Mostar the road runs almost in a straight line, and at Mukoš-Han, about half-way, the remains of a temple, consisting of mouldings, columns, and Corinthian capitals, have been discovered, some of which are preserved in the garden attached to the Government offices at Mostar.

On the same road, near Ortješ, there may be seen in the village graveyard a large prehistoric tumulus covered with gravestones of modern burials.

At some distance to the south of the Buna bridge, in the vicinity of Hodbina, there is a group of antiquarian



PLATE XXIV.

OLD STONE BRIDGE OVER THE BUNA.

remains of special interest. First we come to a flat tumulus 30^m. in diameter and 1.20^m. in height, and 75^m. farther there is a second tumulus with dimensions a little less. The latter was excavated by Mr Radimsky, but only a much-decayed skeleton, without grave-goods, was found. Immediately to the east of this, while a new vineyard was being laid out in 1888, a cemetery of urn-burials, extending over an area of several acres, was discovered, which yielded fragments of urns in great quantities. The urns were mostly



Fig. 70.—POTTERY WITH WAVY ORNAMENTATION.

unornamented, and contained only pieces of bone and charcoal. The few fragments of ornamented pottery found, especially those with wavy lines (Fig. 70), are of extreme importance, inasmuch as they point to a Slavish origin. Pottery with this peculiar ornamentation (*Wellenlinie*) is largely found in North Germany, in association with the *Burgwille*. The same kind of ware has also been found in the Slavish lake-dwellings, as at Alt Friesack.¹

¹ Lake-Dwellings of Europe, p. 318, fig. 96.

About a hundred paces or so south of the excavated tumulus, some three or four bodies were found interred

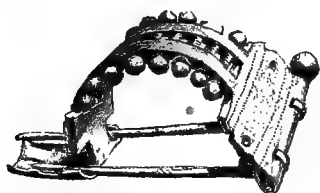


Fig. 71.—ROMAN FIBULA WITH TWO PINS ($\frac{3}{8}$).

in soil abounding with fragments of tiles and other Roman *débris*. One of these graves contained, along with a skeleton, a bronze fibula of unusual form (Fig. 71), a spear-head, a knife-blade, and some nails—all of iron

(Fig. 72). Another of these graves contained fragments of pottery, an iron sickle (Fig. 73), and a few

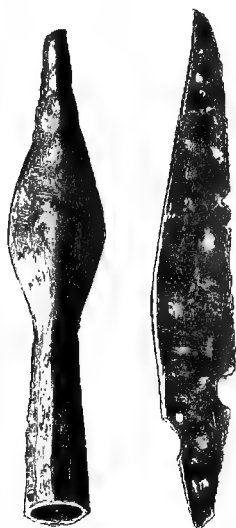


Fig. 72.—IRON KNIFE AND LANCE ($\frac{3}{8}$).

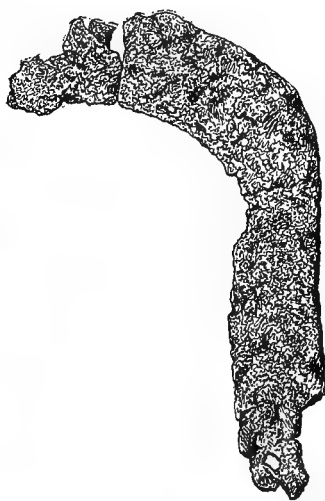


Fig. 73.—IRON SICKLE ($\frac{1}{4}$).

large iron nails. Mr Radimsky remarks on the frequency with which iron nails are found in Roman

graves, a fact which he also observed in his investigations in Steiermark.

Still proceeding southwards, we come next to an interesting specimen of a Roman bridge, in three small arches, crossing the rivulet Pašina. Its entire length is 18^m. and breadth 4^m. (Fig. 74).

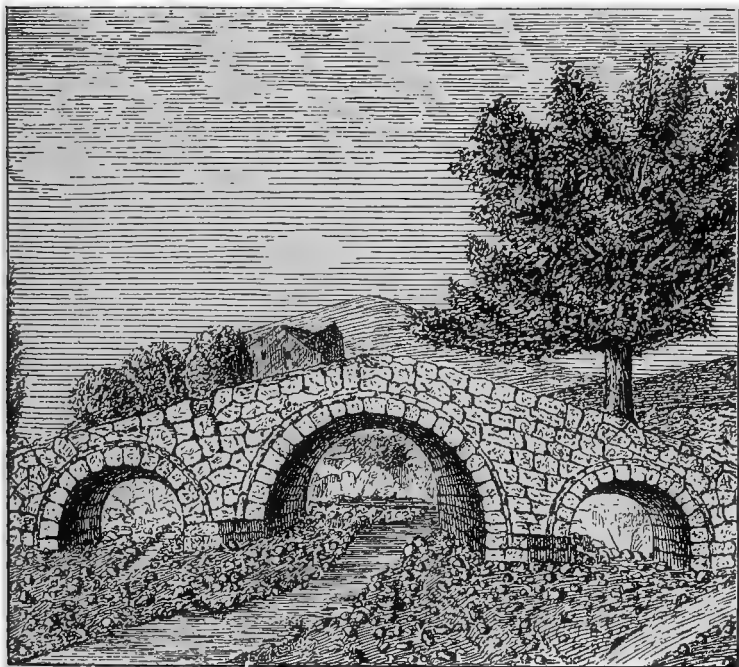


Fig. 74.—ROMAN BRIDGE NEAR MOSTAR.

On the high ground to the south-east is the very remarkable prehistoric fort of Ograč, a ground-plan and section of which are given on Fig. 75, after a plan made by Herr Hugo Jedlička of Mostar. It is a greatly

elongated enclosure, which, conforming to the direction of the hills, runs from south-east to north-west. Its wall is composed of irregularly shaped stones, collected

from the surface and heaped up, like the vallums of so many of our prehistoric British forts. The enclosure measures 397^m. in length, 118^m. in greatest breadth, and covers an area of 3 hectares (about 7 acres). The following references to the different parts, as marked in the plan, will give some idea of this extraordinary structure :—

(a.) A stone cairn, 92^m. long, 23^m. wide, and 6.50^m. high (the surface measures 70^m. by 12^m.). It contains 6960 cubic *mètres* of material, and is supposed to have been a cemetery.

(d.) A connecting partition between the walls of the enclosure.

(b.) An elliptical ring-wall, probably for the purpose

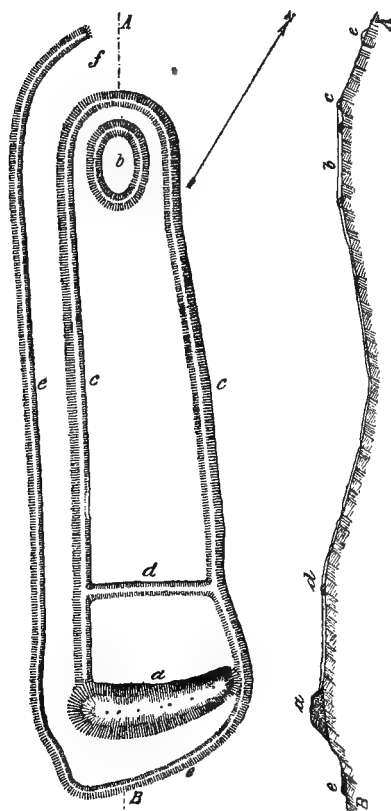


Fig. 75.—PLAN AND SECTION OF THE PREHISTORIC FORT AT OGRAČ.

of defending the entrance *f*. Its major and minor axes measure respectively 49^m. and 33^m. The breadth of the wall (base) is 6^m., and its height 2^m.

The total length of wall is 1246^m., and the amount of solid material used in its entire construction is estimated at 16,674 cubic *mètres*.

Retracing our footsteps, and passing to the right in the direction of the Suhopolje, we traverse the site of a Roman town, covering some 8 hectares. Here among the foundations of buildings were found fragments of tiles, broken columns, iron slag, and a portion of a hand-millstone, 12 inches in diameter. Near this is the old Roman bridge (Kosorbrücke) over the Buna, which stands on seven arches of various spans, and measures 60 yards in length and 13 feet 6 inches in breadth (Plate XXV.). The mortar used in its construction has become so hard as to unite the stones into a consolidated mass. About 300^m. to the south-east of this bridge are the ruins of a rectangular building measuring 31 feet by 24 feet, which Mr Radimsky holds to be Roman. About 250^m. beyond it there is a tumulus, 15^m. in diameter, bearing three medieval gravestones in the form of a sarcophagus, two of which are ornamented. About a quarter of a mile still farther east there is another tumulus with Bogomile gravestones. South of this, Mount Gorica rises to the height of some 200 feet above the plain, and from it a low ridge runs eastwards to the still higher hill of Kičin. The antiquities observed on these hills are of various ages, and their entanglements require to be treated with care.

The plateau of Gorica is crowned with four tumuli, and at its base, on the south-west side, two fragments of a Roman millstone, part of a key and the tip of a weapon—both made of iron—were picked from among the usual *débris* of roofing-tiles indicative of Roman settlements.

The hill Kičin, rising to the height of about 400 feet over the plain, has on its summit the remains of another remarkable prehistoric fort, which, though differing materially from that on Ograć, is not less interesting to the archæologist. It exhibits the following constructive details, as shown on Fig. 76. The centre is occupied by a circular area, 17^m. in diameter, and surrounded by a wall or rampart, *a*, external to which there is a second circular rampart, *b*, 73^m. in diameter. On its northern slopes, distant from the central fort about 150^m. and 300^m. respectively, are two portions of similar ramparts, *c* and *d*, which also appear to have been used for defensive purposes, as they are constructed on the weakest side of the hill. Along both sides of the low ridge between Kičin and Gorica are the remains of defensive walls, as shown at *k*, *k*₂.

On the western flanks of this hill, as well as on the ridge connecting it with Gorica, are the ruins of hut-circles, scattered in groups here and there, and having portions of their walls still remaining above ground. They are dry-stone buildings 9 feet to 12 feet in diameter, with walls from 3 feet to 5 feet thick. The width of the entrance varied from 1½ foot to 3 feet 9 inches.



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Among the huts immediately to the west of the pre-historic fort, *g* to *g*₄, a confused mass of secondary buildings of stone and lime has been observed which seems to have been used as a breastwork of some kind. Besides the mortar, which, of course, is characteristic

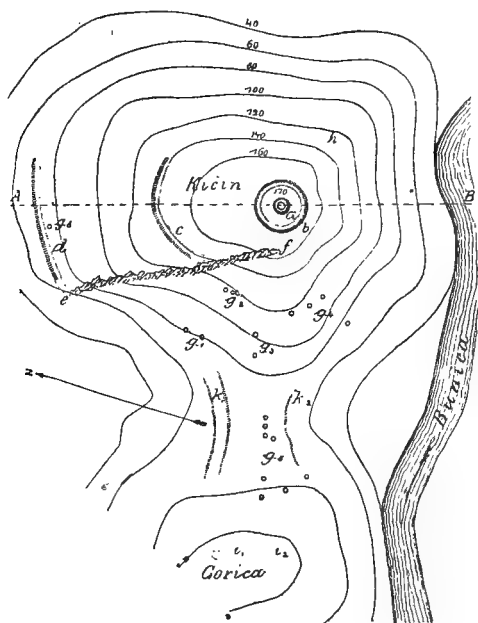


Fig. 76.—PLAN OF THE FORTIFICATIONS ON KIČIN.

of Roman work, there have been found round about the locality several portions of hand-millstones made of diorite from the neighbourhood of Jablanica, as well as numerous fragments of pottery. This pottery is readily classified into two distinct kinds. The one, badly fired, porous, and readily weathered, has a red-

dish, yellowish brown, grey, or black colour. The fragments indicate vessels of various forms with small handles or projecting ears and flat bottoms (Figs. 77 and 78). The other is wheel-made, and is believed to be of Roman origin (Fig. 79).

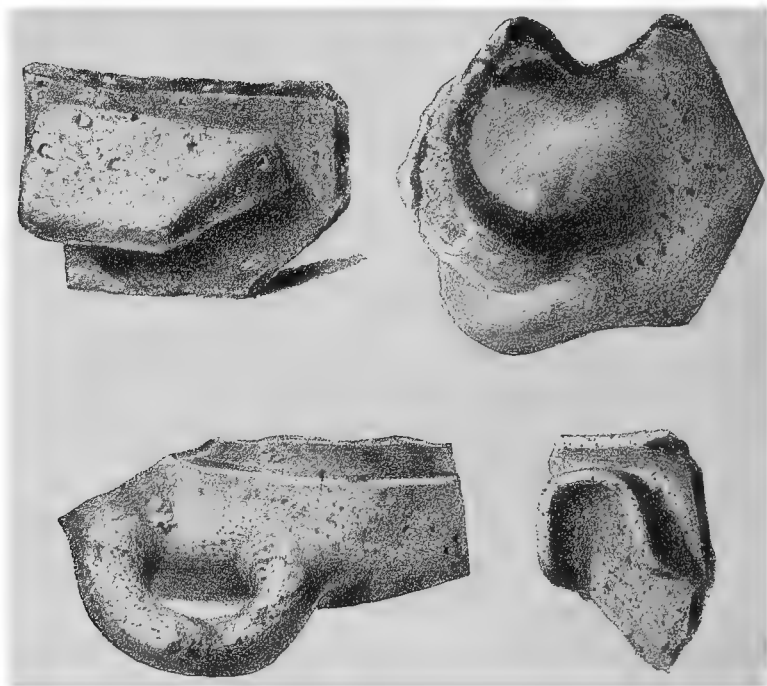


Fig. 77.—FRAGMENTS OF HAND-MADE POTTERY, KIČIN.

Traces of Roman buildings have also been observed in many other places in this neighbourhood, as, for example, by the hill Gradina near the source of the Bunica, and at the village of Berberovići. Among the antiquities from this latter place are Greek and Roman

coins. On the top of the hill Matera, to the east of Berberovići, there is a cairn.

Crossing now to the right bank of the Buna by the Roman bridge, already described, we come upon another

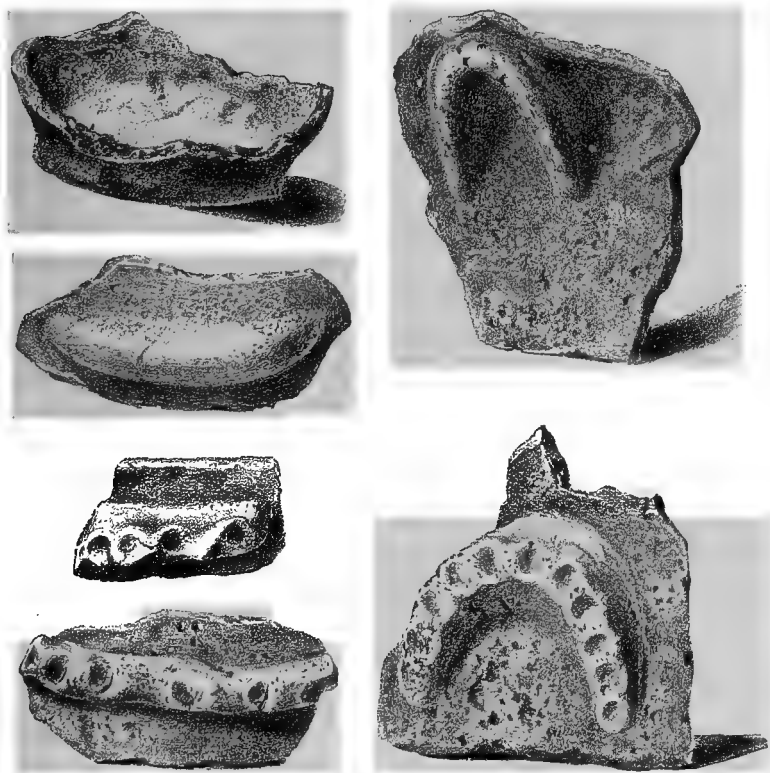


Fig. 78.—FRAGMENTS OF HAND-MADE POTTERY, KIČIN.

group of Roman ruins in the vicinity of the village of Kosor. At some distance to the north of this village there formerly stood in the garden of a dwelling-

house a remarkable stone chair, now transferred to the Museum at Sarajevo, with an *Altbosnische* inscription, thus translated by Radimsky: "O Stein, gedenke,



Fig. 79.—FRAGMENTS OF WHEEL-MADE POTTERY, KIČIN.

wessen du gewesen, wessen du bist, wessen du sein wirst!" Several stone chairs of a similar character have been found throughout Herzegovina, as at Ključ,

near Gacko, and by the Orthodox church of Ošanić at Stolac. According to Dr Moriz Hoernes, two were found in the ruins of Vratar in the district of Rogatica (Fig. 80).¹

Immediately below the village of Blagaj the Buna is crossed by a very dilapidated old bridge of two arches,



Fig. 80.—THE "HERZOGSSTUHL" AT KOSOR.

of which only the central pillar now remains; but their place is taken by wooden beams, and so the bridge is still serviceable. Above this, however, there is a well-preserved Turkish bridge of five arches. Blagaj

¹ Sitz. berichte der phil. Hist. Cl. der Kaiser. Akad. der Wissen. in Wien, 1881, s. 861.

was formerly the capital of the land of Čhlum, and in the tenth century the fortress of Bona stood where subsequently the castle of Stjepangrad reared its defiant towers. From Blagaj to Mostar the whole of the

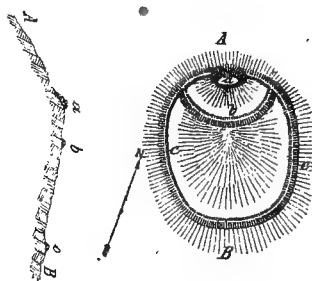


Fig. 81.—PLAN AND SECTION OF PREHISTORIC FORT.

eastern boundary of the Bišćepolje is strewn with antiquities of the same diversified character as already described. On an isolated hill of nummulitic limestone, to the east of the Mostar road, there is a cairn (*Gomila*) forming part of a small *Wall-burg*, as shown in Fig. 81, which may be noted by way

of showing another variety of the remarkable prehistoric forts of this district. The cairn is 16^m. in length, 10^m. in breadth, and 2^m. on its inner side and 6^m. to 8^m. on its outer side in height. The major and minor axes of the oval enclosure measure respectively 76^m. and 65^m. On the plain below are many tumuli.

To terminate this archæological ramble among so many ruins of past civilisations in the Mostar district with some appearance of completeness, there is one other discovery to which reference must be made, also put on record by Mr Radimsky.

In 1890 it came to the ears of this indefatigable investigator that, in 1882, a stone sarcophagus, reported to have contained several gold ornaments, was found at Han Potoci, on the road to Sarajevo, 11 *kilomètres*

to the north of Mostar. On making inquiries into this matter in the locality itself, he ascertained that the report was perfectly true, but that the discoverer, carrying all the relics with him, had left the neighbourhood, and his whereabouts could not be traced. Persons who were present when the tomb was opened stated that the lid had been broken, but that the sarcophagus itself still lay *in situ*. Wishing to know the exact form of this sarcophagus, and especially if it bore any inscription or ornament, he directed Herr Hugo Jedlička, of Mostar, to dig up the remaining portion of it. In the course of this operation another sarcophagus was come upon, which, though smaller than the former, was fortunately unrifled. It contained the skeleton of a child and the following objects:—

By the head lay two ear-rings, each formed of a gold ring-clasp with a globular expansion of open filigree-work at one end, and a pendant. As a setting, this pendant has a piece of green glass in its upper and a garnet in its lower part (Fig. 82).



Fig. 82.—GOLD EAR-RING (½).

In the region of the neck was a necklet composed of a garnet bead in the middle, and four separate or-



Fig. 83.—PART OF A NECKLET OF GARNETS AND GOLD FILIGREE WORK (½).

naments of gold each made by connecting together three corrugated tubes of this metal (Fig. 83).

On the breast there were two fibulæ of white metal, gilt on the upper side, and displaying ornamental flutings. Each has a setting of two garnets as eyes in its head-like anterior portion. The posterior part is semicircular and gives off five uniform projections. A short arc connects the ends of the fibula, making its total length $3\frac{3}{8}$ inches (Fig. 84).

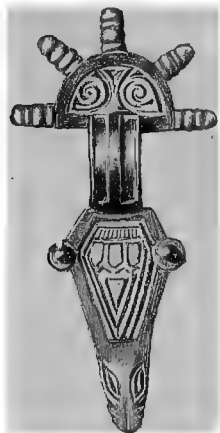


Fig. 84.—FIBULA OF
GILT SILVER ($\frac{2}{3}$).

Also in the region of the breast was a ball-shaped silver box, or bulla, $2\frac{1}{4}$ inches in diameter and $1\frac{1}{2}$ inch in depth, bearing a clasp for fastening it and a ring for suspension—both attached by riveted mountings (Fig. 85). Inside this bulla were two flat-tish amber beads, the larger of which

measured nearly an inch in diameter.

The sarcophagi were both hewn out of limestone blocks, and are similar in every respect except size. They lay parallel to each other at a distance of only a few inches, having their long axes east and west. Neither bears any inscription or ornament, with the exception of the corner elevations on the lid. They measured respectively 2.12^m . and 1.18^m . in length, 74^{cm} . and 52^{cm} . in breadth at the head (both tapered slightly towards the foot), and 81^{cm} . and 50^{cm} . in height. From such strong resemblances it is probable that the gold ornaments reported to have been found in the larger sarcophagus were of the same character as those in

the smaller one, which, it is evident, are not products of pure Roman civilisation. The fibulæ will be readily recognised as stragglers from a wide area in Central Europe, where they are generally associated with the Franco-Merovingians and other early German races, among whom such fibulæ became subsequently highly ornamented. The discovery of similar fibulæ in the Crimea by Dr Macpherson in 1857,¹ has suggested that they are of Gothic origin—a view plausibly supported by the fact that they are especially found



Fig. 85.—SILVER BULLA ($\frac{3}{4}$).

in the countries in which the Goths have sojourned or to which their influence extended.² Some archæologists are of opinion that this type of fibula merely marks a stage of its development from some of the later Roman forms, such, for example, as that figured by me as a relic from the lake-dwelling of Bodmann.³ This view is advocated by Dr Lipp in his efforts to account for the finding of four fibulæ of this type in the graves of Keszthely in Hungary.⁴ Professor Heydeck of

¹ Antiquities of Kertch. London, 1857.

² Baron de Baye in 'Revue Archéologique,' 1888.

³ Lake-Dwellings, p. 137, fig. 30, No. 9.

⁴ Die Gräberfelder von Keszthely, p. 66.

Königsberg, in his description of an urn cemetery at Daumen, East Prussia, in which many examples of this fibula were found, calls them Gothic.¹ Lindenschmit appears to favour the same opinion, as he gives a drawing from an early diptych, showing that the form in question had been used by Romans of the highest standing about the end of the fourth century.² All, however, admit that it was under a Germanic or Gothic influence that this special form became developed. Its area of distribution extends from the Caucasus by way of the Danube to Central Europe, Scandinavia, and Anglo-Saxon England.³ The discovery of such grave-goods in the vicinity of Mostar betrays, therefore, a Northern influence which must have entered the country in pre-Slavish times, probably before the fall of the Roman empire. Procopius informs us that there was a colony of Goths in Dalmatia at the time of the war of Belisarius and Narses.

But these archæological jottings are merely specimens of what this land is capable of yielding under systematic methods of investigation. Imperfect as they are, they bring before us in a striking manner some of the features of the successive whirlwinds of so-called civilisation which have swept over the land, each leaving its quota of devastation behind it. The prehistoric, Roman, and

¹ Alterthumsgesellschaft Prussia Sitz, 19 Heft, p. 41.

² Handbuch der Deutschen Alterthumskunde, p. 426.

³ On the geographical distribution of this type of fibula, see an article by Dr Montelius, 'Congrès International d'Anthropologie et d'Archéologie préhistoriques,' Session VIII., 1876, vol. i. p. 490.

medieval remains, with which we have come in contact, are so well defined that their overlappings and entanglements can be easily deciphered by the general reader. Those who wish more precise and fuller details are referred to Mr Radimsky's original articles.¹

¹ Wissen. Mitt. aus Bosnien und der Herzegovina, Band i. p. 303, and Band ii. pp. 3-34.

CHAPTER VII.

FROM MOSTAR TO THE ADRIATIC, SPALATO AND SALONA.

As a lengthened stay at Mostar at that season of the year was out of the question on account of the heat, our party (except Professor Pigorini who returned to Sarajevo), now increased by the arrival of MM. de Mortillet and Verneau, decided to leave by the early train on Friday morning for Metković, so as to catch the Fiume boat at 8 A.M. of the same day. Our first stoppage was at the station Buna, just opposite to where the river of the same name discharges itself into the Narenta. The latter here flows in a narrow channel with perpendicular banks, as if artificially cut down in the solid rock to a depth of several feet. As the water of the Buna comes spluttering over this ledge it presents the curious sight of a low waterfall stretching for more than 100 yards along the bank of the Narenta. In the vicinity of the village, at the farther end of the bridge over the Buna, may be seen the ruins of the famous Summer Palace of Ali Pasha Rizvanbegović, in the midst of its once carefully tended but now neglected gardens. The picturesque

castle of Stolac, the hereditary seat and birthplace of this mighty pasha, which still defiantly crowns a lofty rock on the bank of the Bregova a few miles to the south-east of this, is a striking testimony to the power he held in the country. Here the usual antiquarian label—*sic transit gloria mundi*—may be most impressively studied in the light of comparatively recent events. Having countenanced in a somewhat underhand way the rebellion of 1848, Ali Pasha became a suspected person, and, on the decisive defeat of the insurgents by Omer Pasha in 1850, his tragic end soon followed. This is how Mr Asboth describes it:—

Ali Pasha, upon learning the result of the battle, left the castle of Stolat under strong cover, and hurried, with a portion of his troops, to Buna, in order that he might await, in his country seat, whatever he had to expect from Omer Pasha, should he be treated as a rebel, or offered a friendly settlement.

But Omer Pasha was no less sly than he. With a great show of respect, he sought the governor of Herzegovina in his country-house at Buna, and in person invited him to a banquet at Mostar, whither he accompanied him. Whilst the banquet was proceeding, the imperial troops advanced on Buna and Stolat, with the announcement that the governor had been deposed, and was a prisoner of the Serdar-Ekrem.

Two native historians have published Ali Pasha's biography; one appeared in Vienna, the other in St Petersburg. The latter describes his end as follows:—

“They dragged old Ali Pasha, who from the infirmities of age could hardly walk, to the Narenta bridge, and there placed him upon a donkey, and thus did Omer Pasha take him with him to the Kraina, whither he was proceeding against the insurgents. Ali Pasha, embittered by this disgrace, burst out

against the Serdar-Ekrem: 'Why dost thou trouble me? Thou, too, art a Wallach, the son of a Wallachian. . . . Whence dost thou arrogate to thyself the power to treat me thus? Even had I taken up arms against the Sultan himself, thou wouldst not be worthy to associate with me as though thou hadst taken me captive in battle, even if thou wert the Serdar-Ekrem three times over. Oh, thou unclean Wallachian, send me rather before the Padishah, that he may pass judgment upon me, and do not thou insult me in mine old age.' Omer Pasha now began to be alarmed, for Ali Pasha had many and powerful friends at the Padishah, to whom he had always been careful to send enormous sums of money from Herzegovina. So Omer Pasha turned the matter over in his mind, until he discovered that it would be better if Ali Pasha were to die, and so at two o'clock in the night a shot was heard, and the news was brought to Omer Pasha that a gun had accidentally gone off, and that the bullet had passed through Ali Pasha's head. Thus died Ali Pasha Rizvanbegovitch, on March 20, 1851."¹

On leaving Buna station the train entered the Žitlo-mislić defile, where again the river, for five or six miles, becomes encroached upon by the Karst rocks on both sides. Here were to be seen fruit-trees in great variety—the fig, the vine, the almond, the mulberry, &c.—scattered over patches of cultivated land, or clustering on ledges among weathered crags and bushes of wild pomegranates. While these ever-changing scenic details were riveting attention, there suddenly came into view, on a declivity among the wild rocks on the left, a city panorama of startling appearance. Whatever impression a closer inspection of Počitelj (the name of this reputed former nest of robbers) might produce on a more inquiring visitor I will not stop to inquire, but to

¹ Bosnia and Herzegovina, p. 270.

the passing railway traveller it appears a veritable gem among the romantic habitable sites of the world. Its curious horse-shoe shape, imposingly outlined with forts and turreted walls, and its terraced buildings stretching from the green waters of the Narenta to the ridge above, present a most enchanting *tout ensemble*.

The next halt was at Čapljina, on the border of the delta of the Trebažat—a seat of the tobacco industry of the district. From the station an omnibus plies to Ljubuški, a town of considerable importance, situated some 18 *kilomètres* to the east, near the commencement of the Trebažat delta. It takes a couple of hours to reach the town, by a level road through luxuriant fields of rice. On the opposite side the Narenta is also joined by a stream—the turbulent Bregova—which comes down from Stolac. After crossing the Trebažat we came to Gabella, near which are some dilapidated walls and towers, the remains of a former stronghold of the Venetians. A little to the west of this was the once flourishing Roman town of Naronā, destroyed by the Avars and Slavs in the year 639 A.D. On its ruins there subsequently sprang up a pirate town, which for centuries became a terror to the entire Adriatic. Its site is now represented by the village of Vid, so called from the Slavonic god Viddo, to whom a temple had been here reared by the conquerors of Naronā.

From Gabella the line passes through a spur of Karst by a tunnel, and on emerging into the alluvial plain, Metković, picturesquely situated on a projection from the hills on the opposite side of the Narenta, comes

into view (Plate XXVI.). The Fiume steamer was moored at the quay, just opposite to the railway terminus, but on the other side of the river, so that to get on board we had to be ferried across. A little higher up the town can be reached in twenty minutes by a long* wooden bridge. Metković has the reputation of being infested with malaria, owing to the extent of swampy land in its neighbourhood; but apparently this does not interfere with its popularity, as it contains over 4000 inhabitants.

Having got clear of the clamouring porters, it was with a feeling of relief that we found ourselves lounging under the deck-awning of a comfortable-looking steamer, with no further anxiety till we reached Spalato, our next halting-place for the night. To be occupied, as we had been during the last ten days, with a prescribed programme of work of absorbing interest, without even a momentary pause for reflection, was a considerable strain both on body and mind. The materials brought before us, too, were so abundant, novel, and varied, that it was difficult to grasp their full import at the time. Hence the prospective *dolce far niente* of a ten hours' voyage was as welcome as a holiday to a schoolboy.

The passage from Metković to the Adriatic, a distance of 19 *kilomètres*, is made by the right branch of the Narenta, which, in consequence of extensive dredgings (1882-89), is now sufficiently deepened and *en règle* to give access to the larger boats plying on the Adriatic. The delta extends far and wide, partly as marsh or pool, and partly as rich cultivated land. "In firmer parts,"



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says Mr Asboth, "maize grows into real forests, the vine flourishes luxuriantly untended, and the mulberry-tree grows to such a size that four men can hardly clasp it round. The fevers, however, which each summer attack every single inhabitant, destroy the people, and the marshes of the Narenta the soil. For a long time efforts have been made to drain it; but the undertaking is a colossal one, and the outlay still to be met enormous." Touching at Fort Opus, half-way down the delta, we next called at Trappano, a village prettily situated on the peninsula of Sabioncello, directly opposite the mouths of the Narenta. This was our first contact with the olive-tree, and its characteristic appearance in the landscape seemed to have breathed a new influence into everything around us. Not only was the Italian language occasionally spoken, but the architectural style of the buildings, and even the dress and manners of the people, assumed more of an Italian character than we had hitherto encountered.

From one point of view—viz., that of the weather, which is generally uppermost in the thoughts of travellers bent on a sea voyage—our first day on the Adriatic was perfect. The sea was like a mirror of glass, its surface broken only by the ripples which, in divergent streams, followed in the wake of the boat, but which served no higher purpose than to remind us that behind the awning there was a glaring, hot sun. At first every rock, village, and bay we passed, were scanned through the expectant halo which novelty always adds to a scene. But with the best field-glass the Dalmatian

coast offers but little variety, and its monotony soon becomes tiresome. The eye, too, gets wearied, and seeks relief, but in vain, from the everlasting background of glaring limestone that looms behind the green streak of shoreland. Except *table d'hôte*, which was comfortably served on*deck, and a call now and again at a trading port, there was nothing to vary the charming dreaminess of the situation. One of the party went ashore and came back with a huge water-melon. It was in capital condition, but its delicious qualities soon deteriorated by exposure to the hot sun. On another occasion two of the gentlemen bought the entire stock-in-trade of a fruit-vendor, with which they came marching on board, and, like the spies of old, presented to us as evidence of the richness of the land. But their trophies, instead of being carried as the grapes of Eshcol, were borne by a smiling, fat woman, who came staggering between them with her baskets of grapes and peaches.

On arrival at Spalato, to our astonishment and great delight, we beheld on the pier the commanding figure of our Scandinavian colleague, Dr Montelius. He had arrived at Spalato the day before, too late to see the antiquities, and so was obliged to remain over night, and arranged to continue his journey by the Fiume boat. As the boat did not leave till a late hour at night, he devoted his whole time to the Museum, and obligingly deferred his visit to Salona until our arrival. Carriages were then in readiness to conduct the whole party thither under the guidance of Professor Bulić, the director of the Museum. In the course of conversation

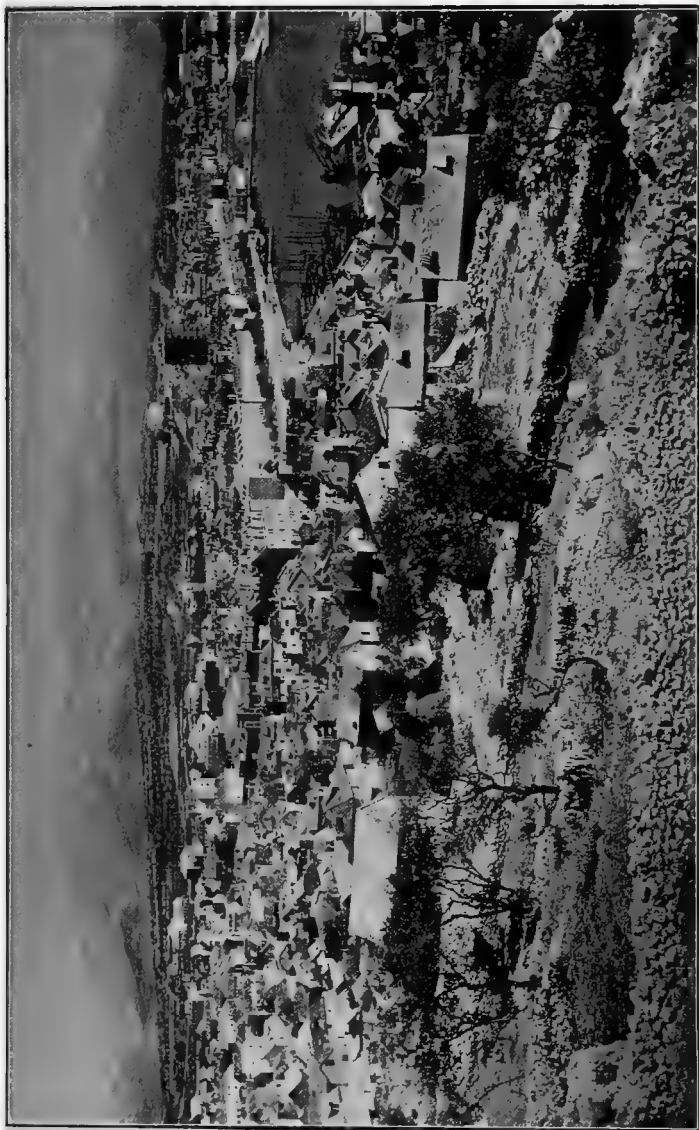
with the professor I learned that the members of a congress, who had assembled here for the study of Christian archæology, were to bring their labours to a close on the following day by an excursion to Knin to see some remarkable remains of ecclesiastical architecture recently discovered in that neighbourhood; and he very kindly suggested that our party might join them. Dr von Fellenberg and I took advantage of this privilege, and so we had reluctantly to part with our friends of the Sarajevan Congress, who continued their journey northwards that same night.

Spalato, one of the most important towns on the Dalmatian coast, is beautifully situated on a small semicircular bay on the south side of a peninsula, which projects some five miles from the mainland in a westward direction (Plate XXVII.). On the north side of this peninsula is a small land-locked bay, at the head of which was situated the ancient town of Salona. The land lying immediately between Spalato and the Salonic bay sinks into a low ridge, which, however, again rises into a hill (Marjan), some 600 feet in height, with which the promontory terminates. The site of Salona lies three or four miles to the north-east of Spalato, in a fertile hollow along the north bank of a rivulet which rises higher up, near Fort Clissa. This picturesque fort crowns a conspicuous rock standing in the middle of a remarkable gap in the Karst ridge. The gap is evidently due to the denuding agencies of primeval times, and the rock is a mere vestige of the material which once filled it and made the great ridge continuous.

To the north of Salona the precipitous heading of this broken ridge (Kozjak) is 2000 feet high, and its corresponding part (Mosor) to the south-east attains to even a greater height, though not rising so abruptly as the former. Thus situated in the midst of a rich vegetative luxuriance, and commanding an extensive view of the bay, which, like an inland sea, extends westwards for 19 *kilomètres*, the amenities of ancient Salona could hardly be excelled. The position is thus described by the authors of 'Guida di Spalato e Salona':—

La posizione è incantevole; l'orridezza romantica delle scoscese e verticali rupi coronanti la cima del Kozjak, contrasta vivamente con la sottoposta verdeggiante vallata, ove ai tremuli pioppi dei prati si frammischiano i salici piangenti ed i platani; nel mentre sulle giogaje soprastanti a piani orizzontali si avvicendano i vigneti a basso fusto, dei quali la monotonia verde chiara è rotta dal verde carico dell'ulivo e del fico, e dalle roccie, che quà e là fanno capolino dal suolo lussureggiante. Il terreno è della formazione del carso comune alla Dalmazia: roccioso con leggero strato di humus.

From historical documents we learn that when Salona was captured by the Avars the Romanised Illyrians fled to the islands for protection, but subsequently returning, and finding that the walls of the abandoned palace of Diocletian were impregnable to the attacks of their enemies, they took possession of it and made it a fortified town. The common opinion that Salona became a complete ruin immediately after its capture is proved by modern discoveries to be erroneous. It has been shown that some of its public buildings continued in



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use for centuries afterwards; not only so, but others were being erected at the same time. Thus the *Basilica Urbana* remained uninjured, and continued to be used for religious purposes till its restoration in the middle of the ninth century. Such was also the case with the theatre and amphitheatre, both of which remained standing to a still later period. The former was demolished about the end of the tenth century for the purpose of building a new church (St Michele), and the latter survived to the close of the thirteenth century. Nor are these exceptional instances. Recent excavations incontestably show that Salona was more or less continuously inhabited till the middle ages; but upon the extinction of the Croatian dynasty, in 1102, it rapidly declined, and with the appearance of the Turks on Dalmatian soil, in the sixteenth century, it became a neglected ruin.

Spalato and Salona are thus so intimately connected in their historical associations that, chronologically, the former may be regarded as a continuation of the latter. In proportion as the one fell into decay, the other increased in power and importance till its establishment as the leading town of Dalmatia. Indeed the whole story of this small district, from the foundation of Salona some six centuries before the Christian era down to the present time, is full of interest to the archæologist, the epigraphist, and the historian. Over and above the Roman antiquities, which are exceptionally interesting to those who make Roman art and history a special study, there are other remains, more

particularly those which relate to the Early Christian period, which claim the attention of scholars in general. Before, however, passing to their consideration I should like to make a few observations on the palace of Diocletian—the largest and best preserved Roman ruin of the kind now extant—the ruins of Salona, and the *Museo archeologico Salonitano* in Spalato.

The Palace of Diocletian.

It seems that Diocletian was so enamoured of the scenic attractions and amenities of his birthplace that he resolved, at an early stage in his career, to build in its vicinity a palace in which he could spend his later years in philosophic retirement. At what time this building was actually begun, and who were its architect and builders, are questions which have not yet been solved by the written records of the period. One thing, however, is certain, that, when the Illyrian emperor abdicated at Nicomedia, the palace was in an advanced state of completion; and as it took several years to build, some say twelve, it must have been begun in the closing decade of the third century. It was constructed after the manner of a Roman camp, having four sides and four gates, and included quarters for soldiers and other officials (Fig. 86). Strange to say, it is not an exact rectangle, as the following precise measurements of its sides will show: West, 216^m.; east, 215.10^m.; south, 179.48^m.; and north, 175^m. According to these data, the palace covered

an area of 38,236 square *mètres*, or about $9\frac{1}{2}$ English acres. The parcelling of this large area into streets and dwelling-houses, which took place when the Roman-

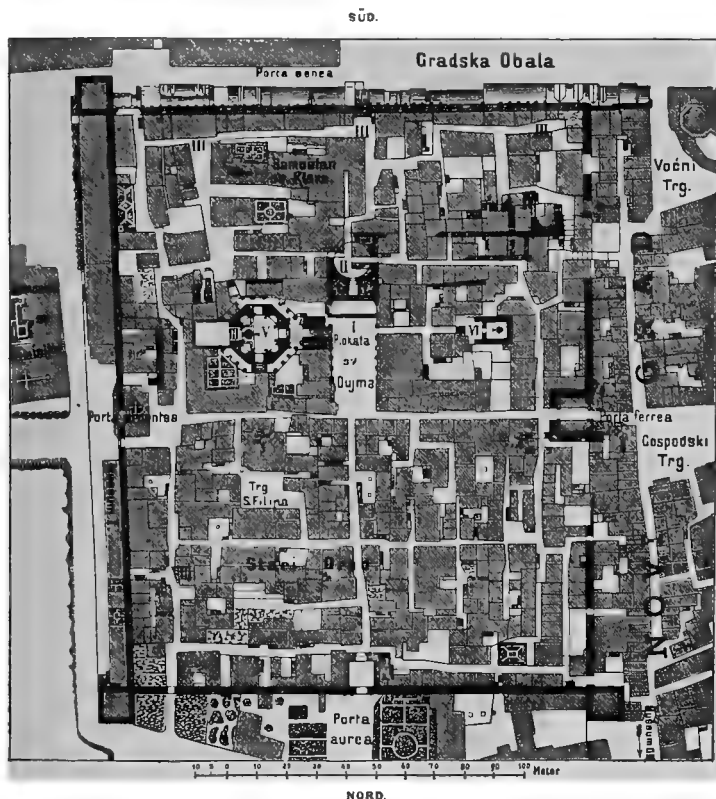


Fig. 86.—PLAN OF DIOCLETIAN'S PALACE.

ised Illyrians converted it into a fortified town, remains to the present day, no doubt having undergone many alterations both of a constructive and destructive character; but the palace still continues to be the centre

and most crowded part of the town. Many of the details of its interior—avenues, arches, peristyle, &c.—are, however, either covered up by these subsequent



Fig. 87.—PERISTYLE OF DIOCLETIAN'S PALACE (I. ON PLAN).

buildings or partially destroyed (Figs. 87 to 91). The most interesting portions of the building still extant, or visible, are the Mausoleum (now the Cathedral), the

Capella palatina (now the Baptistery), certain vestibules



Fig. 88.—DOOR OF CAPELLA PALATINA (VI. ON PLAN).

(Fig. 87), and three of the gates. The two former

buildings stand right and left of the peristyle on rectangular elevations, constructed of massive blocks, and to which a stone stair of twenty-two steps leads up. In its original condition the Mausoleum consisted of a chamber, circular inside and octagonal outside (each side being 8^m. in length), surrounded by a colonnade of twenty-five Corinthian columns supporting an en-

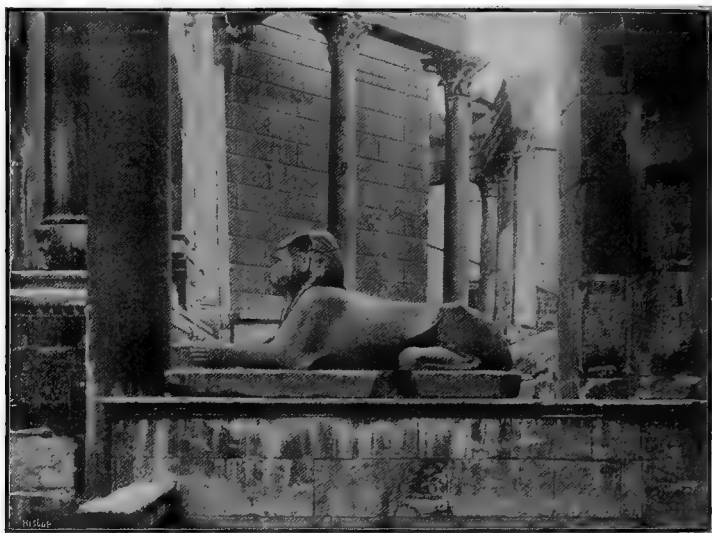


Fig. 89.—SPHINX IN FRONT OF THE MAUSOLEUM (V. ON PLAN).

tablature, and entered by a handsome portico. Adorning this portico were two sphinxes brought from Egypt, which, it appears, remained *in situ* till the erection of the Campanile, when the Mausoleum was shorn of much of its external architectural embellishments. One of the sphinxes may still be seen near its original site, reposing on a modern basement. It is

sculptured out of a Syenite block, and measures 2.50m.

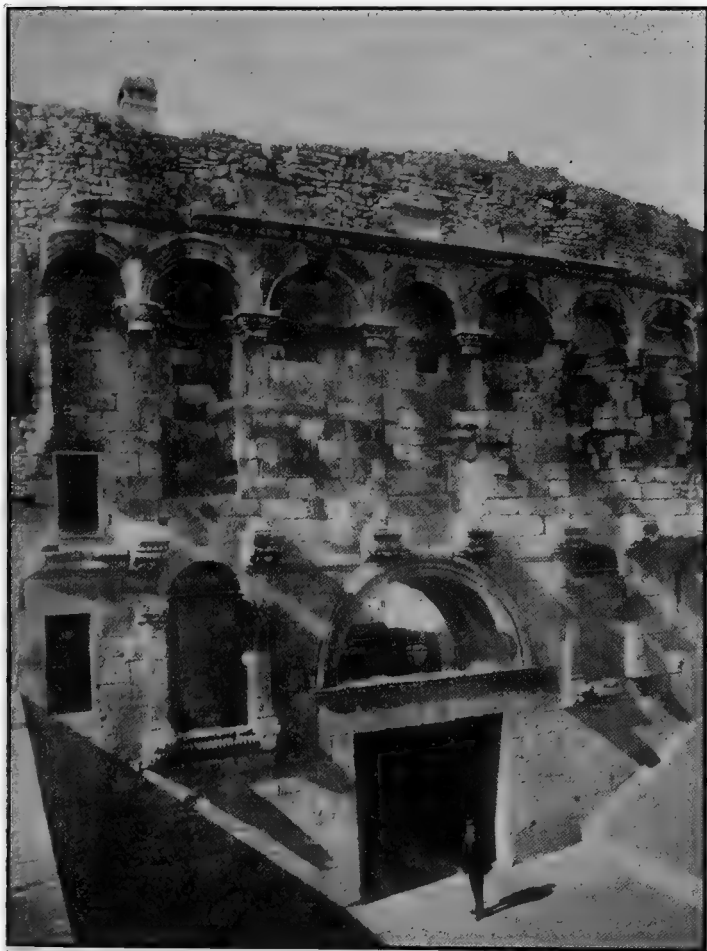


Fig. 90.—NORTH GATE OF THE PALACE (PORTA AUREA).

in length (Fig. 89). The other, minus the head, is preserved in the Museum, and bears an inscription in

hieroglyphs which assigns it to the time of Memnon (Amenhotep) some 1500 years B.C.¹

The principal gate of the palace, *porta aurea* (Fig. 90), was highly adorned, and measured 4^m. in height and 3.50^m. in breadth. In the course of time alluvial deposits accumulated to such an extent as to block it up—a depth of 15 feet being attained close to the wall—and it was not till 1830 that the way was cleared.

A striking feature of Spalato is its Romanesque campanile, a work of the fourteenth century. Its artistic details, as might be expected, are modelled largely after the Roman remains of the third century with which it is surrounded. It is now (August 1894), and I believe has been so for the last dozen years, so completely encased in a mass of scaffolding that no general view of it can be had (Fig. 91).

Art critics say that the ornamental details of Diocletian's palace are more after the Greek than the Romano-Italo style. But however this may be, it is remarkable as forestalling by its series of pillared arcades the basilicas of Early Christian times. On this point Mr T. J. Jackson writes thus:—

The history of Dalmatian architecture is an epitome of southern Europe. In the palace of Diocletian at Spalato we have one of the earliest, perhaps the earliest step towards that new departure in architecture which resulted in the development of the styles of modern Europe. Here we see the first relaxation of the strict rules of ancient classic art; the pro-

¹ The statue of Jupiter Capitolinus, which formerly occupied the Capella, was removed to Venice during the first half of the fifteenth century.—Guida di Spalato, p. 116.

portions of the different members of the order are varied and arbitrary; some members are omitted entirely; new forms of ornament, such as the zigzag, which was to play so large a part in Norman architecture, make their first appearance; and the arches are made to spring immediately from the capitals with-



Fig. 91.—THE CATHEDRAL (MAUSOLEUM) AND CAMPANILE FROM THE SOUTH.

out an intervening entablature. Other irregularities occur in this building which show the decline of the age towards barbarism, and for perhaps the first time in classic architecture columns and fragments of older buildings are adapted and used up second-hand in the new one. It is impossible to overrate the interest of this building to the student either of ancient

or modern art. To the one it will be the last effort of their dying art of antiquity, still majestic in its proportions, still dwarfing into insignificance by its huge masonry the puny works of later ages, which are already crumbling into ruins, while it seems destined to stand for eternity, but at the same time fallen from the perfection of the classic age, and stamped with the seal of returning barbarism. To the other it will seem the new birth of that rational and unconventional mode of building in which the restless and eager spirit of the regenerated and repeopled Roman world has found free scope for its fancy and invention; which places fitness before abstract beauty, delights to find harmony in variety, and recognises grace in more than one code of proportions. Both will be right; the palace of Spalato marks the era when the old art died in giving birth to the new.¹

Nor was this palatial residence deficient in any of the external accessories which Roman civilisation and luxury could contribute to the pleasures of life. An abundant supply of excellent water was conveyed to it by means of an aqueduct from the source of the Jader, situated on the western flanks of the Mosor mountains, near Fort Clissa, at an altitude of 108 feet. The course of this artificial waterway was sometimes through rock cuttings 40 feet deep, and sometimes across valleys supported on arches in the usual manner of Roman aqueducts. These latter portions have for a long time been in ruins (Fig. 92). In 1878 a new canal was constructed by utilising the ancient course as far as possible, and it now supplies Spalato with water of great purity.

Men called the house of Diocletian a palace [says Mr Freeman]; but it was in strictness a villa, a country-house, not a

¹ Dalmatia, the Quarnero, and Istria, vol. i. p. 206.

seat of rule, but the home of the man who had withdrawn from ruling. Constantine reigned at Trier; Theodoric reigned at Ravenna; but Diocletian at Salona lived in the enjoyment of dignified ease, and bade those who would have had him go back and reign again to look at the cabbages which he had planted with his own hands. Trier and Ravenna are the memorials of an epoch; Spalato is the memorial of a single man. No emperor ever ruled the world from among the arches of the



Fig. 92.—RUINS OF THE AQUEDUCT TO THE PALACE.

great peristyle. If the palace was ever the seat of rule, it was at most the seat of local rulers of Dalmatia only. Among the stately columns of its court, beneath the cunningly-wrought cupola of its mausoleum, we think of Jovius, and we think of Jovius alone.¹

After the death of Diocletian, in the spring of the year 313, the palace became State property, but no subsequent emperor made it his abode. The suite of

¹ Essays, Third Series, p. 46.

sumptuous rooms at the south end was reserved for distinguished visitors, and the northern portion became an imperial cloth factory, where numbers of women were engaged in the manufacture of military garments for the Roman soldiers. Hence the palace became known as the *Gynæceum* till, as already mentioned, it was converted into a fort and became the original nucleus of the present town of Spalato.

Ruins of Salona.

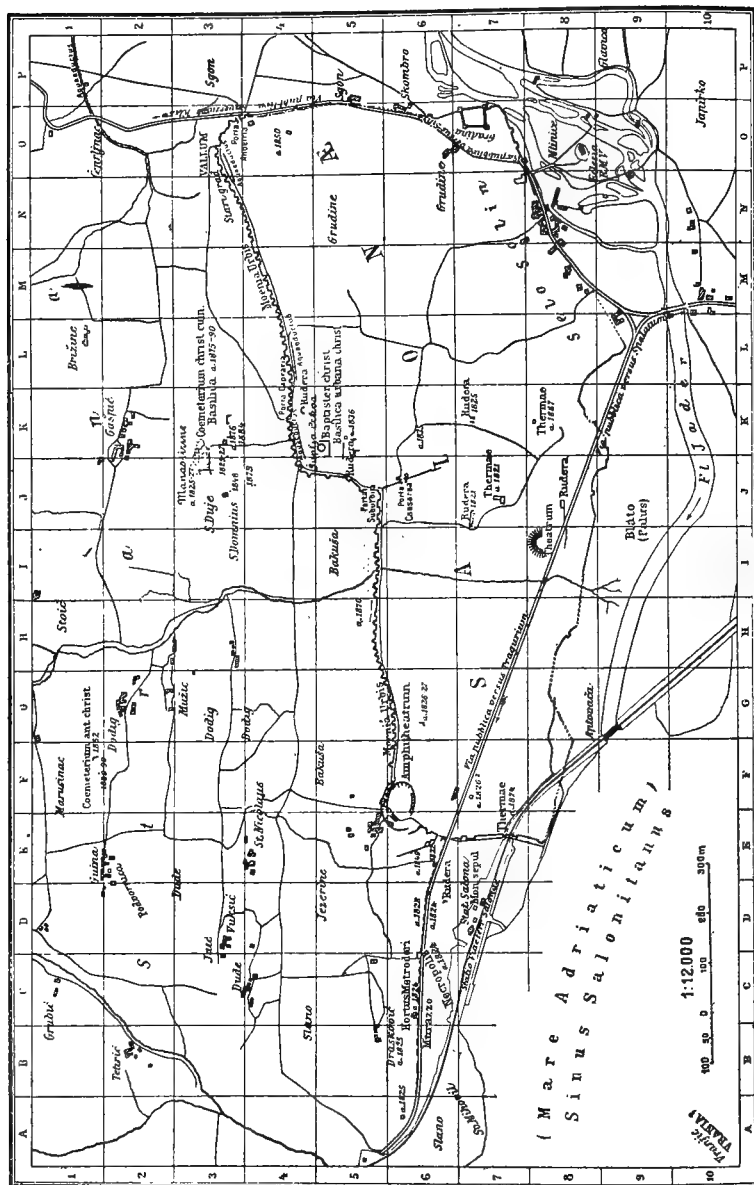
Before taking a passing glance at the collection of antiquities disinterred from the ruins of Salona, and now preserved in the archæological museum at Spalato, it is desirable to have some knowledge of the present state of the ruined city, and of the efforts that have been made to bring to light its buried treasures.

To the visit of the Emperor, Francis I., to Salona, in 1818, may be ascribed the initiatory movement which led to the various excavation schemes which have been since carried out. The operations were first begun under the care of Dr Lanza (1821-27), then discontinued for a time, and subsequently resumed by Dr Carrara (1842-1850). Since the last date they were carried on with some interruptions, owing to the want of funds, till 1877. From that year, in consequence of an annual grant to the excavation committee, the works have been prosecuted continuously up to the present time. They are now being conducted under the guidance of the accomplished director of the Museum, Professor Fr.

Bulić, to whose kindness and courtesy I am mainly indebted for my knowledge of the subject.

Salona may be easily visited either by rail, by carriage, or on foot. Its present surface is so overspread with vineyards and the products of rank vegetation that it is somewhat difficult without a guide to find the situation of some of the exposed ruins. They lie on the further side of the Jader, to the north and west of the village of Solin. Immediately after crossing the Jader by a small Turkish bridge, the road from Spalato divides into two branches. That on the right leads to Fort Clissa and Livno; that on the left passes along the north shore of the bay, and is the highway to Trau and Sebenico. We follow the latter, which at once traverses part of the site of the ancient city. The principal ruins hitherto exposed are those of a theatre, amphitheatre, baths, city walls and gates, pagan and Christian cemeteries, basilicas, aqueducts, &c. (See Sketch Map, p. 240.)

About four hundred yards from the bifurcation of the Spalato road traces of the ancient walls may be seen, and scattered at various points on the right hand are fragments of arches, walls, &c., the remains of baths (*thermæ*), or of water conduits (*rudera*). Further along we come to the ruins of the theatre, which, before being excavated in 1850, were buried to the depth of ten or twelve feet, and can now only with difficulty be traced among creeping vine-stocks. The orchestra, through which the modern road actually passes, was of a circular shape and, like the amphitheatre, surrounded



by a corridor. Numerous remains of columns, capitals, and some fragments of exquisite sculpturings, show that it was highly ornamented. Its dimensions were small, the diameter of the orchestra being only 10^m, and that of the entire theatre 25^m.

Passing some gardens enclosed with stone walls built from the ruins of ancient buildings, we soon arrive at the western wall and gate of the city—*Porta occidentale*. For several hundred yards beyond this gate, and on both sides of the highroad, are groups of pagan tombs, among which may be seen a portion of a so-called cyclopean wall constructed of colossal stones, squared and well fitting into each other.¹ Returning to the *Porta occidentale*, and thence passing along the wall which runs almost due north, we come, at its north-west angle; to the ruins of an oval-shaped amphitheatre which were so completely buried that to reach the original floor the excavations attained a depth of 7^m. The dimensions of the amphitheatre are also small when compared with those of structures of this kind

¹ On this point Mr Freeman writes: "To one who comes to Salona almost fresh from the hill-cities of Central Italy, from the strongholds of Volscians, Hernicans, and Old-Latins, from Cora and Signia and Alatrium, it becomes matter of unfeigned surprise to find Dalmatian antiquaries speaking of these walls as 'Cyclopean.' The name 'Cyclopean,' though as old as Euripides, is as dangerous as 'Pelagian' or 'Druid'; but, if it means anything, it must mean the first form of wall-building, the irregular stones heaped together, such as we see in the oldest work at Cora and Signia. Here we have nothing of the kind. The blocks are very large, and the outer surface is not smooth; but all of them are carefully cut to a rectangular shape, and they are laid with great regularity. There seems no kind of temptation to attribute them to any date earlier than the Roman conquest of Illyricum."—Subject and Neighbour Lands of Venice, p. 165.

in other Roman towns, being only 65^m. long by 47^m. broad. Some three-quarters of a mile to the north of this, at a place called Marusinac, is the site of an ancient Christian cemetery. From the amphitheatre the city wall turns eastward, and its structure now discloses a regular series of square turrets projecting from the main wall. It appears that the front wall of these turrets had been altered in the year 535 by adding to each a prism-shaped block—thus converting a straight line into an angle—for the purpose of offering a better defence. Outside the wall sixteen sarcophagi, partly Christian and partly pagan, were discovered in 1870. We now come to a second gate—*Porta suburbia*—situated at an angular point in the wall, and from which an older wall has been traced southwards for a short distance, in which have been found the remains of another gate—*Porta Cæsarea*. The excavations which brought this gate to light were made by Dr Carrara in 1844. The entire width of the entrance (7.90^m.) is divided into three parts by four pillars of large square stones. The middle passage, which is wider than the two lateral ones, was evidently intended for carriages, as the ruts made by the wheels may still be seen in its stony pavement. The adjacent portions of the wall are of extraordinary thickness, but beyond this they run so deeply as to render further investigations impracticable. It is probable that, at an early period in the history of Salona, this was the eastern boundary of the city which, subsequently, owing to increase of population, had to be enlarged by another

wall which ran northwards from the *Porta suburbia* and encompassed a large additional area.

Returning now to the *Porta suburbia*, and pursuing our course along the line of this outer wall, we come on the right-hand side to the ruins of an ancient Christian church (*basilica antica cristiana urbana*), only partially explored, and near it a baptistry, interesting not only for its structure but as being the oldest building of the kind known. Directly north of this there is a small gate—*Porta Capraria*—and, about 100 yards beyond it in a northern direction, there is another ancient cemetery, called *cimitero antico cristiano di Manastirine*. As these Christian cemeteries and churches will be discussed in the next chapter, it is unnecessary here to do more than point out their sites.

Along the south side of the wall are to be seen remains of aqueducts, and at its north-eastern corner a new defensive feature appears in a “vallum,” or fossa, excavated in the solid rock. A few paces further south is the eastern gate—*Porta Andetria*. From this point the wall runs alongside of the Clissa road till its junction with that from Trau—the starting-point of our peripatetic tour of inspection of the ruins.

The Museum.

Coincident with the commencement of the excavations at Salona was the founding of the *Museo Archeologico Salonitano* at Spalato, the materials of which have now so increased that they have to be packed in

three separate houses in different parts of the town. Professor Bulić gives the following classified summary of their contents: 2034 inscriptions, 387 sculptures, 176 architectural pieces, 1548 objects or fragments of terra-cotta and vases, 1243 objects of glass, 3184 of metal, 929 of bone, 1229 gems, 128 objects from prehistoric times, 15,000 coins; also a library of 1377 works.

Pending the construction of a grand new museum now contemplated, it is unnecessary to specify in which of the three sectional divisions the few objects I may refer to are placed.

Of the inscriptions 80 per cent bear the name of one or other of the divinities, among them being two relating to Mithras, in one of which the god is styled *Sol Deus*, in another *Petra Genetrix*. Many of the inscriptions relate to events in the history of the early Christian Church at Salona. One, a fragment, bears the name of Diocletian, others refer to Greek colonists, and one is bilingual.

The sculptures consist of statues, torsos, heads, and groups of figures in bas-relief. It would appear that the best of these were carried away in the preceding centuries to Venice, and, in more recent times, to Vienna, Buda-Pest, and Agram. Among the more interesting of the bas-reliefs remaining may be noted those on several sarcophagi. One sarcophagus, on which is represented the hunt of the Caledonian boar (*la caccia del cinghiale caledonio*), up till the year 1886 adorned the front of the *Capella palatina* (Baptistery); another shows the legend of Hippolytus and Phædra (Fig. 93);

others, the Good Shepherd (Plate XXVIII.), the Crossing of the Red Sea, &c.

The terra-cotta objects include bricks, tiles, lamps, and pottery. The lamps are numerous, and extremely interesting on account of the variety of objects and scenes with which they are ornamented. Those bearing Christian symbols will be afterwards referred to. Of the vases there is one, a small pot with a lid, of

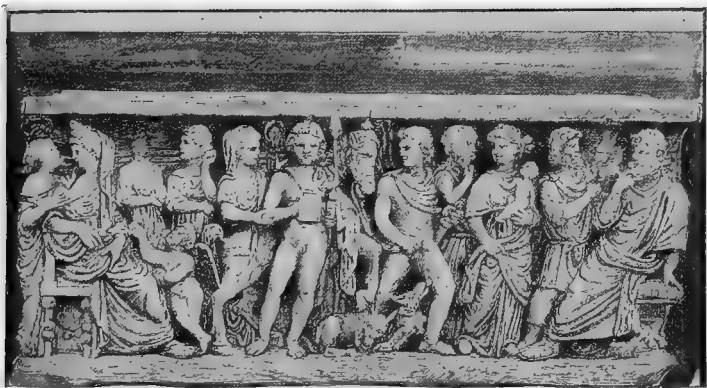


Fig. 93.—SARCOPHAGUS (HIPPLYTUS AND PHÆDRA), SALONA.

exceptional interest. It is ornamented with figures of different animals—stag, tiger, ass, goose—painted in black and violet on a yellow ground. It was found in a grave at Salona, and is reckoned the oldest object in the Museum, being of Corinthian origin, and dating as far back as the sixth century B.C.

The assortment of articles made of glass is large and varied, but few of the objects are entire. Many are so similar to Roman remains of the kind found in other

countries that there can be little doubt that they were imported from abroad. That, however, there was a glass factory at Salona is, at least, rendered probable by the discovery of a Christian inscription in which mention is made of one *Pascasius vitriarius*.

The other objects in the museum—gems, instruments, ornaments, coins, &c.—are of the usual character found among Roman collections, and, with the exception of those bearing on the early development of Christianity in this quarter of the world, call for no further notice.

As for the prehistoric department, it may be said to be altogether unrepresented, the few objects that come under this category being chiefly from foreign countries. Evidently this field has yet to be exploited in the neighbourhood of Spalato.

CHAPTER VIII.

EARLY CHRISTIAN REMAINS AT SALONA AND KNIN.

THE history of Christianity, since its origin among the humble peasants of Judea till its complete triumph over the Paganism of Europe, is as interesting to the archæologist for its art materials as it is to the theologian for its doctrines. The transition from a deeply rooted polytheism, which had already appropriated to its ritualistic services the highest products of Greek and Roman art, to a purely abstract monotheism, which at first had no outward insignia to commend it to the popular mind beyond its altruistic value to human civilisation, could hardly have been effected without strenuous opposition on the part of those who fancied themselves already in command of the portals of the religious world. But failure attended every effort to crush the new faith in the bud, and even the persecution unto death of its Founder and of many of his disciples only served to quicken the pace at which its doctrines were spreading throughout the world. So rapidly had this been the case that early in the fourth century Christianity

became the recognised religion of the Roman empire. As a philosophical creation of the mind, and the very antithesis to many of the cosmic forces governing the conduct of humanity, Christianity in its origin was, and ought to have been always, independent of the mystical observances which had gradually accumulated around the paganism of Europe. But, alas! scarcely had the Church attained the spiritual freedom of conscience for which she had so long struggled, than she stepped into the vacant throne of this very paganism, and quickly glided into the regions of intolerance and persecution. The engrafting of so many superstitious ceremonies on the primitive cult of the Christians ultimately culminated in a system of religious despotism which, for several centuries, actually retarded the intellectual and social development of humanity. To the Greek and Roman schools of art which, owing to other causes, already contained some germs of decay, the downfall of paganism was a severe blow, and under the increasing troubles of the empire their classical elements receded more and more into the background of current civilisation. From their ruins sprang up what is known as Early Christian art.

The successive stages of this new development in the pictorial world present some well-defined characteristics, although they are not connected by such definite evolutionary principles as mark the growth of a science or an art which comes to maturity by virtue of its own inherent forces, and attains its *beau*

*idéa*l by a progressive series of improvements. But these characteristics owed their origin to influences entirely outside the sphere of art—influences which subordinated artistic taste and skill to sentiment. From this point of view, the consecutive stages of Early Christian art may be said to run *pari passu* with the development of the religious and speculative doctrines which constitute the great landmarks in the history of the Church herself.

The immediate effect of Christianity on Roman art was to purify its ancient forms and to inspire them with something of the gentleness of its own spirit. Whilst the hand of the classic artist is still visible in the freedom with which outlines and flowing robes are delineated, the moral inculcated is entirely new. Andromeda's monster becomes Jonah's whale; Orpheus, or Endymion, or Mercury becomes the Good Shepherd; an Orante takes the place of a Pietas, &c. As the profession of Christianity during the first three centuries was contrary to Roman law, which forbade the worship of strange gods under penalty of death, the adherents of the new faith had to perform their rites in secret. To suffer martyrdom was, however, considered by some converts so glorious a termination to their earthly career, that they actually courted persecution by making public display of their faith in open defiance of the law; in which case the law had to be carried out. It was also this enforced secrecy which, in the first place, stimulated the early Church to the adoption of symbols, such as the vine, the Good

Shepherd, the fish, the ship, the dove and the olive branch, the palm, the anchor, &c. The earliest development of the new faith at Rome was among the resident Jews, through whom it rapidly spread to the artisans and slaves; but by the end of the first century many persons of distinction had also become converts to it. The sepulchre being held sacred among the Romans, no agent of the law dared to enter its precincts; and so, many who secretly favoured the Christians—having thus an opportunity of being serviceable to them with comparative impunity to themselves—offered honourable burial to the bodies of those who suffered martyrdom. When at last, in the year 313, the Edict of Milan put a stop to persecutions, and, more especially, when a few years later Christianity became the recognised religion of the Roman empire, the graves of these martyrs were greatly coveted as appropriate sites for the numerous chapels and basilicas which were then being built throughout Christendom.

Almost our only knowledge of Christian art previous to this date is derived from the subterranean sepulchres, especially those of Rome and Naples, known as Catacombs, which were appropriated by the early Christians. Such cemeteries, though long in use among various Eastern nations—Egyptians, Phoenicians, Jews, and even Etruscans—were not common among the Romans. A few, however, were to be found in pre-Christian times in the vicinity of Rome, where the soft rock of the Campagna was peculiarly well adapted for excavations

of a like kind. Jews resident in Rome had also practised this method of burial, and continued the custom after their conversion to Christianity. In this way the early Christians, who were at first confounded with the Jews, had access to the Catacombs without exciting the suspicion of the pagan authorities of the city. It was not, indeed, till about the end of the second century A.D. that these subterranean tombs came into general use. But the original nucleus of almost every one of them was either a pagan or a Jewish cemetery. The well-known Catacomb of Prætextatus originated in a second-century tomb of the worshippers of Mithras, and it is adorned with a number of frescoes of the third century. It would appear, therefore, that the Catacombs of Rome were really of pagan origin, that for a few centuries they were used by pagans and Christians, and that finally they became exclusively used by Christians.

No sooner had the triumph of Christianity been announced than these Catacombs became the scenes and centres of great religious activity. Chapels, oratories, crypts, &c., were then excavated over the graves of the martyrs; and the recesses thus formed were ornamented with marble columns, paintings, and frescoes. The extension of church buildings above ground in the vicinity of Rome relieved to a considerable extent the overcrowded state of the Catacombs, which henceforth became a place of pilgrimage to the faithful. But the frequent incursions of the Goths and other barbarian tribes into North Italy introduced a disturbing element into the general religious harmony which then pre-

veiled, and a cry was raised that the graves of the martyrs were in danger of spoliation. Such inroads, more especially those of the Lombards in 756, induced Pope Paul I. to open the graves of the more renowned martyrs and to distribute the bones and relics among the larger basilicas. After this the Catacombs were less frequented by pilgrims, and ultimately, during the early middle ages, they were entirely forgotten.

We have thus preserved to the present time a remarkable series of tombs, chapels, mosaics, paintings, symbols, *graffiti*, &c., which, when critically examined by the methods of modern archæology, disclose, in a fairly satisfactory manner, the story of Christian art during the first five or six centuries of the present era. It is more especially from the frescoes that the progressive development of its details can be best studied. These are mostly painted in yellow, red, and green, on a white ground. After the decadence of ancient classical art the subjects dealt with are almost all treated in a conventional manner. Human figures have no pretence to being portraits; and Biblical characters are often represented as beardless youths. For the first three centuries this want of reality may have been intentional, as Christians had then to dissemble their religious ideas by a kind of hieroglyphic language—to wit, the early symbols. During this period no scenes, either from the life of Jesus or from that of the Virgin, are depicted in the Catacombs or are to be found on religious monuments elsewhere.

When the northern barbarians threatened the Roman

capital the few remaining artists of the Greek and Roman schools emigrated to Byzantium, the capital of the eastern division of the empire. The dissimilar elements thus brought together—viz., the ancient, the oriental, and the Christian—developed a new phase of ecclesiastical art and architecture, known as the Byzantine school, which took definite shape about the beginning of the sixth century. We may thus roughly classify the successive stages of Early Christian art into the following three periods:—

- I. From the rise of Christianity to its adoption as the creed of the Roman empire early in the fourth century. This was the era of persecutions, and of a primitive symbolism inculcating the simple, touching, and impressive truths of Christianity.
- II. The period inaugurated by the Constantinian renaissance, characterised by the construction of basilicas, the introduction of the sacred monogram, and the extension of symbolism to Biblical scenes.
- III. The rise of the Byzantine school of Christian art. This period covers the importation of a number of new elements into the Christian religion, ending in a gorgeous display of saintly imagery and ceremonies. We notice now, for the first time, a pretended portrait of Christ, the nimbus, the substitution of the Agnus Dei for the Good Shepherd, images of the Crucifixion, Mariolatry, &c.

The Cemetery of Manastirine.

With the above general principles before us we are in a position to examine the Christian antiquities found at Salona with some degree of intelligence. It was a tradition that the basilica of Manastirine contained the sepulchres of the martyrs SS. Domnius and Anastasius that induced Drs Lanza (1825-27) and Carrara (1848) to



Fig. 94.—THE CEMETERY OF MANASTIRINE, SALONA.

make the tentative excavations which first disclosed in this locality the existence of a large necropolis (Fig. 94). In 1859 a peasant while ploughing came upon the cover of a marble sarcophagus representing the scene of Hippolytus and Phædra (Fig. 93). When this sarcophagus was being removed to the Museum at Spalato, in 1872, three others were exposed, among them being one hav-



SARCOPHAGUS FROM SALONA.

ing on one side three separate arches with sculptured columns in relief. The central panel represented the Good Shepherd, and the side ones had groups of figures (Plate XXVIII.). Near this same spot, in the following year, was found the famous inscription of the pilgrim Domnius, son of *Flavius Theodotus, curator reipublicæ*, of the year 382, which states that the official name of this necropolis was *Cæmeterium legis sanctæ christianæ in prædio Asclepiæ*. Since then the excavations on this venerated ground have been prosecuted regularly and systematically, with the result of bringing to light a vivid exposition of the successive transformations which the place had undergone during the first five or six centuries of the Christian era—no doubt faithfully portraying the religious conditions of the times. The accompanying plan (Fig. 95), which Professor Bulić has kindly put into my hands, will enable my readers to follow the details of a short description of these interesting developments of the Early Christian Church in this part of Europe.

It would appear that a rich citizen of Salona of the name of Lucius Ulpius, who lived at the end of the first or beginning of the second century, was in the habit of granting to his co-religionists of the Christian faith burial at his private villa, situated on the north side of the town at the place now called Manastirine. The descendants of Ulpius, continuing in like manner to favour the Christians, permitted the burial of some martyrs on their premises, and commemorative slabs were attached to their graves, or in some instances an

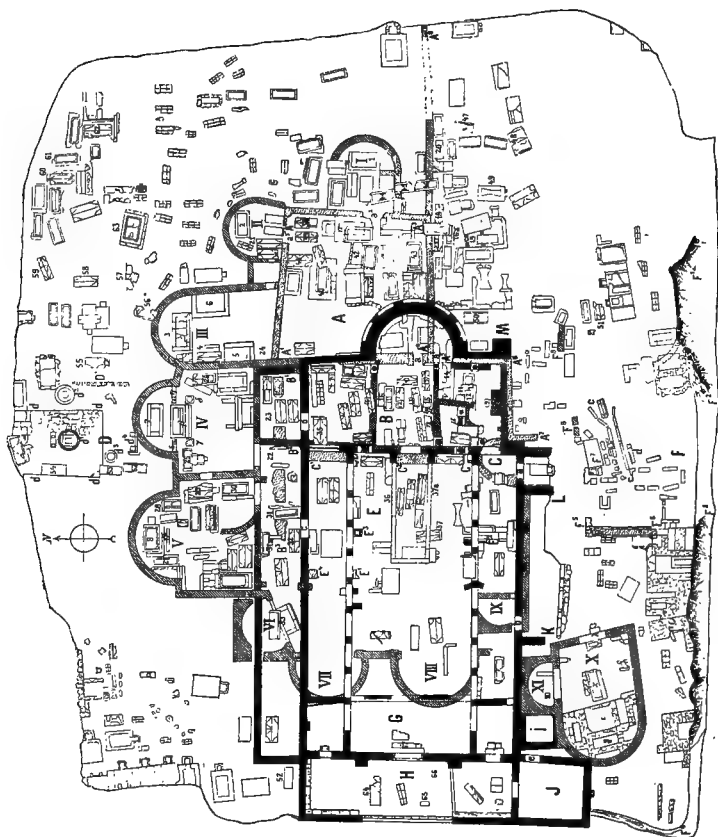


Fig. 95.—PLAN OF THE CEMETERY OF MANASTIRINE, SALONA.

Edifici della IV epoca (I-II sec.).
A. Konstantinova; B. C. E. edifici pre-
diali; D. basilica; E. basilica; F. in-
gresso alla villa della città.

Edifici della IV epoca (II-IV sec.).
G. basilica; H. basilica; I. basilica;
di stile manastirine di stile
(I-V, X, XI), e quattro di
privati (VI-IX). Sepolcri or-
gnali di marmi n. 1-16; 17-18;
19-20; 21-22; 23-24; 25-26; 27-28;
(I-6, 9).

Ritorni della IV epoca
(IV-V sec.).

Edifici della IV epoca
(IV-V sec.).

Gradinae, ušlabje dobe
(I-II v.). A. Gradina Ušlabja
B, C, E. polski stanovi. D
vinošnja; F. dala u vinograd
u grada.

Do dobe (II-IV v.) anđeoska
anđeoska; 7. dobe
(I-V, X, XI); 4. porobilja
(VI-IX). Iverni grobovi u
čistila br. 1-16; preneš-u
na III dobe (1-6, 9).

Popravljeni dobe (IV-V v.)

III dobe: basilika VII v. rika

inscription was carved on the sarcophagus. Other persons belonging to the powerful family of the Valerii, who had been persecuted by Diocletian for professing Christianity, were also buried in the same place by "Matrona Asclepia," a descendant of L. Ulpus. On the plan the dotted portions represent the remains of the buildings on the property of Ulpus—the family sepulchre, *A*, an atrium in front of it, *B*, and various other buildings, outhouses, &c., *C*, *D*, and *E*, in connection with the establishment. The family tomb, *a*, consisted of an underground chamber (still extant), and an overground structure which had been destroyed in ancient times. The interior of the former had been richly decorated with painted walls and a floor of marble slabs. Here, it is supposed, was originally placed an inscription, fragments of which are now in the Museum at Spalato, to the effect that L. Ulpus was the founder of the monument, as well as the proprietor of the ground at the beginning of the second century.

An exceptionally handsome specimen of these underground chambers was divided into three *loculi* by marble slabs (Nos. 11, 12, and 13), and contained the remains of three illustrious martyrs who were put to death during the reign of Diocletian. One of them was St Domnius, who is known from historical documents to have suffered martyrdom in the year 299.

A citizen of Aquileja by name Anastasius, hearing of Diocletian's relentless persecution of the Christians, and being desirous of martyrdom, came to Salona making public profession of his faith. The Emperor summoned

him to appear before him in his great palace at Spalato, and condemned him to be drowned in the sea.¹ The "Matrona Asclepia" begged for his body, which being secured, she temporarily buried at the wine-press of her establishment, *D*; but when, shortly afterwards, the

¹ Mr Freeman, after pleading in mitigation of the dark stain which rests on the fame of Diocletian on account of these persecutions, writes thus:—

"Diocletian, like Julian, might have said with his dying breath, 'Galilæan, Thou hast conquered.' For ten years the Sulla of the Church had withdrawn from persecuting and from ruling. For ten years he had paced that stately gallery which looked forth on the sea, the hills, the islands, which had been familiar to the eyes of his childhood. For ten years he had gazed on the matchless peristyle of his own rearing; he had prayed to the gods of Rome in the temple on his left hand; he had looked—with what faith or hope we cannot guess—on the cupola on the right, girt with surrounding columns, where his own ashes were to rest. In the course of those ten years another Emperor, sprung, if not from his own Dalmatia, at least from Illyria in the wider sense, had arisen at once to finish and to undo his work. Constantine had come to cement yet more firmly his fabric of despotic rule; but he had come also to take the faith which Diocletian persecuted into close partnership with the polity which Diocletian founded. He had come to take Diocletian's great artistic invention as the model of new temples of that hated faith, to supply the place of its earlier temples which Diocletian had swept from off the earth. In those ten years Constantius had reigned in our own island, and Constantine had gone forth from York to Trier, and from Trier to Rome. The persecutor Maxentius had fallen by the Milvian bridge, and his mighty basilica by the Sacred Way had learned to bear the name of his conqueror. The persecutor Galerius, he who had goaded the unwilling Diocletian to deeds of blood, had confessed his error, and had joined with Constantine in proclaiming toleration for the Christian faith, in asking Christian prayers for the safety of the Empire. All this Diocletian lived to hear of: he lived, too, to see his order of succession set aside; he lived to see his images overthrown; according to some accounts, he lived to receive yet deeper wounds in his dearest relations. It is certain that the daughter of the abdicated emperor, herself the wife of his successor, that Valeria in whose honour a province had been named, was persecuted and put to death by the malice in turn of Maximin and of Licinius. Certain it is that the man to whom so many princes owed their greatness lived to be treated with scorn by men who owed all their power to him, and to ask in vain for a milder treatment of his own guiltless child."—*Historical Essays*, 3d Series, p. 52.

persecutions came to an end, she built a small basilica (iv.) in honour of the martyr and transferred his bodily remains to it. The ruins of this *basilichetta* have been recently exposed, and the tomb, occupying the place of honour (No. 7), is supposed to be that of Anastasius. In support of this opinion are two fragments of an inscribed stone which were found here, and which indicate the date of the martyr's death. This *basilichetta* was built in imitation of the ordinary Constantinian basilicas, having a narthex, nave, and apse—the latter being approached by a few steps.

It was in this narthex (as was proved by later investigation) that the sarcophagus (Plate XXVIII.) ornamented with the figure of the Good Shepherd, incidentally discovered in 1872, as already mentioned, was situated; and the pedestal on which it stood still remains. Unfortunately it had been rifled in ancient times, a fact which was proved by damaging marks on the cover. It is made of white marble streaked with veins of blue, and has accommodation for two bodies—as indicated by a longitudinal ridge in its interior—supposed to have been those of “*Matrona Asclepia*” and her husband. It measures 2.65^m. in height to the highest point of its massive cover, 2.50^m. in length, and 1.33^m. in breadth. The cover is in the form of a sloping roof with four corners (*acroterii*). This colossal tomb is ornamented with figures sculptured in bas-relief on both ends and one side. The absence of ornamentation on the other side suggests that it was intended to be placed close to a wall.

The division of the front ornamentation into three arched panels is very remarkable. The symbolism of the central human figure with the sheep and trees is unmistakable, but in regard to the interpretation of the lateral groups, the woman and suckling infant and the dignified-looking man carrying a book in his left hand, there is no general agreement among antiquarians. The monument dates from the earliest Constantinian period, and is a good example of the hybrid Greco-Romano style then prevalent. In the same place (No. 22) was found the other beautifully sculptured sarcophagus—Hippolytus and Phædra (Fig. 93.)

The erection of the *basilichetta* over the tomb of the martyr Anastasius was the commencement of a new phase in the development of Christianity—viz., that of doing honour to the martyrs by rearing commemorative basilicas, mausoleums, or chapels, over their graves; and it would appear that the whole of the property of L. Ulpus, or of his descendants, had been occupied by one or other of such monuments. These are shown on the plan by the Roman numerals I. to X. The small numbers 1 to 66 indicate special graves in or adjacent to them. A large portion of the area thus occupied has now been explored, but it is unnecessary to dwell on the particular details of each discovery. No. V. was a *basilichetta*, like that adjacent to it, and contained the sarcophagus of S. Acidus. The mausoleum (No. VI.), built in the year 360, was the last of the series. It is square outside (the others being all circular), and shows, by being pressed be-

tween Nos. V. and VII., that space in the cemetery was then becoming scarce. Nos. VII., VIII., and IX. were obliterated when the great basilica was built. No. 28 contained the sarcophagus of a little girl, *Flavia quæ sana mente salutifero die Paschæ gloriosi fontis gratiam consecuta est*. Several of the inscriptions on these sarcophagi are in Greek, and one is bilingual—viz., Latin and Greek. Several of the sarcophagi are quite plain, others have the sacred monogram (*Chi-Rho*), or the *Alpha* and *Omega*, or, in a few instances, a raised cross. One shows the letters D. M. (a sure sign of a pagan grave) deleted and replaced by the *Chi-Rho* monogram. Everything tends to show that at this period the cemetery extended to vast dimensions, of which only a portion has as yet been explored. The original property of L. Ulpian seems to have been gifted to the Church by the sons of "Matrona Asclepia" about the middle of the fourth century. From the inscriptions it is also proved that the cemetery became so crowded that during the latter half of the fifth century burials were entirely discontinued and only partially resumed after the great basilica was built.

The third phase in the history of this remarkable locality was the erection of the basilica in the sixth century, outlined on the plan in broad black lines. It extended over the larger part of the ground previously occupied by the graves of the martyrs, and its construction necessitated the destruction of a number of religious and sepulchral buildings. The exact date

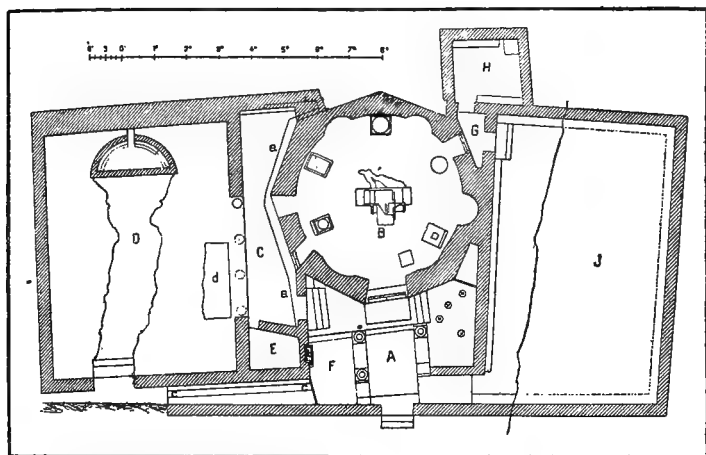
of this event is not known, but its restoration could not have been posterior to the time of Justinian (555). From a careful study of collateral circumstances, and especially of the inscription on the architrave of the principal entrance to the basilica—*Deus noster propitius esto reipublicæ Romæ*—the authors of ‘Guida di Spalato e Salona’ adopt the year 532 as that of its probable completion. Between this date and 555 its restoration must have taken place. At the capture of Salona by the Croats in 639, this basilica was destroyed by a conflagration, but not, it is said, before the remains of its most famous martyrs were carried off to Rome “per sanctissimum et fidelissimum Martinum abbatem.” The illustration (Fig. 94), taken from a recent photograph, shows the exposed ruins of the basilica with some of its ornamental columns still standing, together with a few sarcophagi in the foreground.

Basilica Cristiana Urbana.

But the Manastirine necropolis, with its basilica and marvellous array of mausoleums, sarcophagi, chapels, &c., is by no means the only evidence of the rapid development of Christianity at Salona. Near the summit of its ancient Acropolis, the most conspicuous part of the town, there was erected in the beginning of the fourth century the majestic *Basilica cristiana urbana* “dedicata alla Beata Vergine.” In the times of persecution the Christians had a meeting-house, *domus orationis*, on the Acropolis, and it is supposed that it was on its

site that the basilica was erected. Its ruins, still largely unexplored, and the explored baptistery adjacent to it, are now imperfectly visible, as the locality for many years has been a congenial home for the vine and the olive. It was indeed while planting a vine that a peasant

Baptisterium antiquum christianum Salonis.



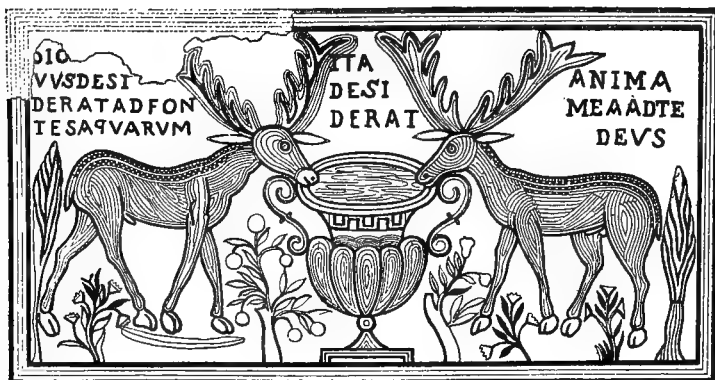
- A. Vestibulum ex Basilica Episcopii in Baptisterium.
 B. Baptisterium cum fonte baptismali.
 C. Porticus inter Baptisterium et Consignatorium.
 D. Consignatorium (vel locus confirmationis).
 E. G. Secretaria.
 F. Porticus
 H. Apodyterium.
 I. Catechumenion (vel Schola Catechetica)

- aa. canal in piscinam ex aqueductu urbis.
 b. piscina
 cc canalis
 d Opus musivum. Cervi duo ad aquam cum inscriptione: *sic ut cervus desiderat ad fontes aquarum ita desiderat anima mea ad te Deus.*

Fig. 96.—GROUND PLAN OF BAPTISTERY, SALONA.

one day struck his mattock through a mosaic pavement. This led to the discovery of the baptistery, perhaps the most interesting of early Christian times of which we have any knowledge. Its position is near the northern wall of the basilica, and its investigation by Dr Carrara,

in 1842,¹ disclosed the following details. The plan (Fig. 96) shows the form of the building and its internal arrangements so far as they could be made out from the actual remains. From the basilica a door led to a tetrastyle vestibule, *A*, having a piscina, *b*, on the left. From this another door conducted to an octagonal-shaped apartment, the walls of which contained eight semicircular niches—three of which, however, were open, and



Opus musivum (d). Cervi duo ad aquam

Fig. 97.—MOSAIC WORK IN BAPTISTERY, SALONA.

used as doorways. Polished marble slabs covered the walls, and in front of them, over a mosaic pavement of singular splendour, was a circle of six marble columns bearing floriated capitals of the sixth century, after the style of those found at Ravenna. In the centre, on a small platform, was a rectangular marble font, *B*, approached by a few steps; and at its four corners were the remains of slender columns of red marble which had

¹ Denkschriften der Phil. Hist. Classe, vol. ii. 2d part, pp. 1-16.

probably supported a canopy. A door led to the chambers *G*, *H*, and *J*. In the corridor, *C*, there was observed a small water canal, *a a*, excavated in the rock below the pavement, which connected with the piscina, *b*; other similar channels or gutters were at *c c*. From this corridor a tripartite entrance, formed by four marble columns, led into the large chamber, *D*. This was the *consignatorium*, or room for the administration of the chrisma (*cresma*), the whole of which was covered with a mosaic pavement “con bellissimi disegni.” Opposite the tripartite entrance, at the point marked *d* in the plan, was the celebrated mosaic representation of the two stags with the following inscription: *Sicut cervus desiderat ad fontes aquarum ita desiderat anima mea ad te Deus*¹ (Fig. 97).

The Cemetery at Marusinac.

The existence of another ancient Christian cemetery at Marusinac was first proved by excavations made by Dr Carrara in 1852, which revealed the ruins of buildings, extensive mosaic pavements, fragmentary inscriptions, sculptures, &c. In 1890 the proprietor, Nicolò Milišić Dodig, observed traces of a building, and a tomb with the inscription, *Hic jacet Joannes peccator et indignus presbyter*. This presbyter John was brother to the proconsul Marcellinus for the year 605. Since this discovery systematic excavations have been carried on here with good results, and, being still in progress,

¹ Psalm xlii.

further important disclosures may be expected. The building investigated by Mr Dodig has turned out to be the ruins of a villa erected in the first century. At a distance of about five paces from the tomb a square mausoleum was met with, in which there was a portion of a stone vase (*luminare*), ornamented with upright curved grooves. Similar objects were found in the cemetery of Manastirine. Other discoveries recorded from Marusinac comprise a stone pilaster decorated with a Latin cross in *alto-relievo* of the sixth century, fragments of a stone chair, “*cattedra di pietra asfaltoide*,” portions of greatly damaged mosaic pavements, with designs in three colours, and an inscription to the effect that in the fifth century a place of worship had been erected here.

Christian Symbols at Salona.

Of the symbolism prevalent among the early Christian community at Salona there is a number of illustrations. Most interesting is a stone sarcophagus, on which Christ is represented as an *Agnus Dei*, without the nimbus, but surmounted with the *Chi-Rho* monogram and the Greek letters α and ω . Disposed in groups around the central figure are twelve lambs having the names of the twelve apostles written below. Beside the symbolic figure of Christ the following words are written: (*E*)cce agnus (*D*)ei qui tollit (*pec*)catum *seculi*. Another fine marble sarcophagus, representing the passage of the Red Sea, was transported from

Salona some years ago, and is now preserved in the convent of S. Francesco in Spalato.

Of all the figures made to represent Christ that of the Good Shepherd (*Buon Pastore*) is the most touching, the most ancient, and the most frequently adopted during the earlier period of Christianity, but after the

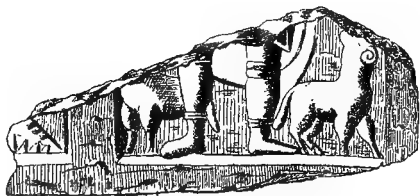


Fig. 98.—FRAGMENT OF SARCOPHAGUS (*BUON PASTORE*), SALONA.

peace of the Church this symbol gradually gave way to the *Agnus Dei*. As representing the Saviour of men, it held among the early Christians much the same place as the crucifix now holds among the members of the Catholic Church. It has been observed on all classes of monuments, statues, bas-reliefs, medallions, pictures, lamps, &c. Among the Christian relics from Salona it occurs as bas-reliefs six times on sarcophagi (mostly fragments) (Figs. 98 and 99), once on a carved stone (Fig. 100), and four times on gems.

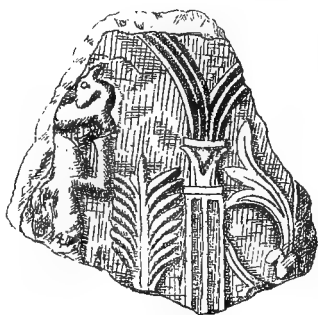


Fig. 99.—FRAGMENT OF SARCOPHAGUS (*BUON PASTORE*), SALONA.

Originally the fish was the image of the conquered soul—"I will make of you fishers of men"—but it soon came to be symbolic of the Saviour himself. During

the third and fourth centuries (the first dated example is of the year 231) it was a very common symbol of Christ, and continued to be so regarded till about the ninth century, but after the middle of the fourth it

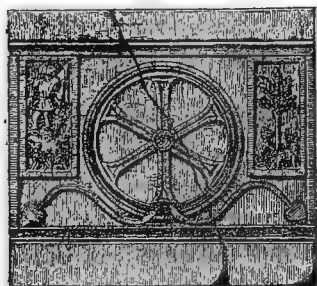


Fig. 100. — SCULPTURED STONE (38½ inches high), SHOWING BUON PASTORE ON LEFT CORNER.

became comparatively rare. The acrostic *Ιχθυσ*, the initial letters of *Ιησοῦς Χριστὸς Θεοῦ Υἱὸς Σωτήρ*, is first recorded in 384 A.D. to have originated with the dialecticians of Alexandria. The fish, both in outline and name, has been frequently found in the Catacombs sculptured on stones, and more rarely in

the shape of small bronze models. A silver fibula of this form, and a gem with the word "Ichthys" on it, may be seen in the Spalato Museum. Among the relics from Salona the fish appears singly, or in combination with loaves, six times on terra-cotta lamps, once on a sarcophagus from the cemetery of Manastirine, and once (that above referred to) in the form of a silver brooch.

The terra-cotta lamps, so numerous found in the cemeteries of Salona, are of the ordinary well-known Roman types. Of special interest is the fact that a score or so of them are ornamented with various Christian symbols, of which the following are the most significant :—

One, with four beaks, shows two fishes and five loaves (Fig. 101); another of fine terra-cotta has also two

fishes, one being twisted (Fig. 101); and two more have single representations of this symbol (Fig. 102).

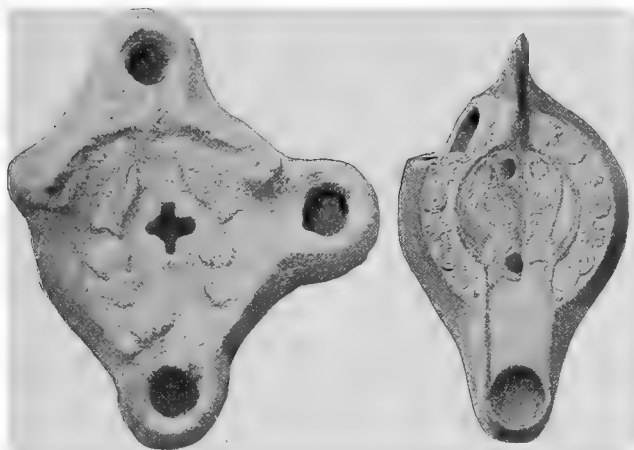


Fig. 101.—TERRA-COTTA LAMPS WITH CHRISTIAN SYMBOLS, SALONA.

One bears the sacred monogram (*Chi-Rho*) between two lambs (Fig. 103); another shows it with an α and ω ; and four others have the monogram alone.



Fig. 102.—TERRA-COTTA LAMPS WITH CHRISTIAN SYMBOLS, SALONA.

An Orante appears on one, and the figures of saints or lepers on three others.

A palm-tree appears in three instances (Fig. 102).

A cock is twice represented (Fig. 102), and in one of the instances the bird is above a cross.

One lamp represents a man with raised hands before three small crosses (Fig. 104). The cross appears on

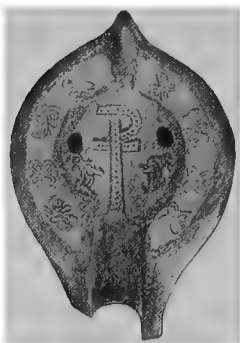


Fig. 103.—TERRA-COTTA LAMP
WITH CHI-RHO MONOGRAM,
SALONA.



Fig. 104.—TERRA-COTTA LAMP
WITH THREE CROSSES AND
ORANTE, SALONA.

two lamps, but one of them (Fig. 105), may be a mere ornament, and of pagan origin.

One shows two fishes drawn by a string, and another a fish with a hook.

One, curiously enough, bears the representation of a seven-branched candlestick.

Among the other evidences of Christianity may be mentioned a statuette of silver—a so-called Orante (Fig. 106), and three engraved gems. One of the latter shows a dove with an olive-branch in its beak; another

the Good Shepherd between two lambs; and the third, which forms the setting of a bronze ring, the word *Χριστος*, and a star above it (Fig. 106).

These few notes, however inadequately they describe the extent of the discoveries at Salona, are sufficient to show that, early in the fourth century, Christianity had got the complete ascendancy over paganism in that quarter of the world. From numerous inscriptions we learn that before the end of the fourth century there



Fig. 105.—LAMP WITH HANDLE IN THE FORM OF A CROSS, SALONA.



Fig. 106.—A BRONZE RING AND A SILVER STATUETTE (2).

were suffragan bishops (*choroepiscopoi*), and that in the fifth century Salona was the seat of an archbishop. The names of several bishops, who attended Council meetings at Rome and elsewhere, are also to be found among the early documents of the Church—proving how important was the position the “*Ecclesia Catholica Salonitana*” then occupied in the Christian world.

Excursion to Knin.

Unless one is perfectly familiar with 'the language in which the business of a Congress is conducted, the published proceedings are more important than actual participation in the discussions. I therefore became a member of the "Primo Congresso degli Archeologi cristiani" for the purpose of securing a series of excellent papers, and the 'Guida di Spalato e Salona'—a work specially got up for the use of the members. The discoveries made a few years ago in the vicinity of Knin were described and illustrated by Professor Bulić in the Jougo-Slavish Academy at Agram (1888). An abstract in French of this article forms one of the papers to the Spalato Congress. It is to this source, as well as to the exposition given by Professor Bulić in the Museum at Knin during our visit, that I am indebted for the following facts, which are doubtless new to English readers.

In laying out the line of railway from Siverić to Knin, in the autumn of 1885, it was found necessary to cut through a hillock called *Kapitul*, situated about one *kilomètre* to the east of Knin. History, tradition, and some undefined ruins, still visible above ground, encouraged the hope that in the course of executing this work important discoveries would be made on the *Kapitul*. This hope has not been disappointed. The foundations of a church and other ecclesiastical buildings were uncovered, and among the *débris* were numerous fragments of sculptured stones and marble

slabs, many of which were ornamented with a variety of interlaced patterns formed of raised bands intertwining with regularity, somewhat after the manner of the interlacements on some of the early Christian monuments of Great Britain and Ireland. These architectural relics are preserved in the Museum at Knin; and it was to enable the "Archeologi cristiani" to see them,

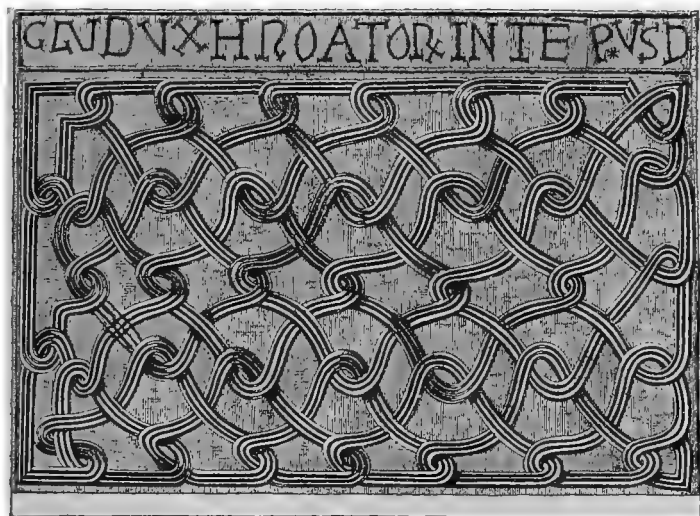


Fig. 107.—SCULPTURED STONE FROM KAPITUL, KNIN (†).

as well as the place where they were found, that the excursion to Knin was organised (Figs. 107-109).

Professor Bulić, in the work above referred to, shows, from the study and comparison of local records, that Knin during the Croatian dynasty was a royal residence and the seat of the courts of justice. He states that about the middle of the eleventh century Peter J.

Krešimir made the Bishop of Knin not only Primate of Croatia, but also one of the king's counsellors and Minister for Home and Foreign Affairs. He thus shows that Knin was a place of great importance, which, as

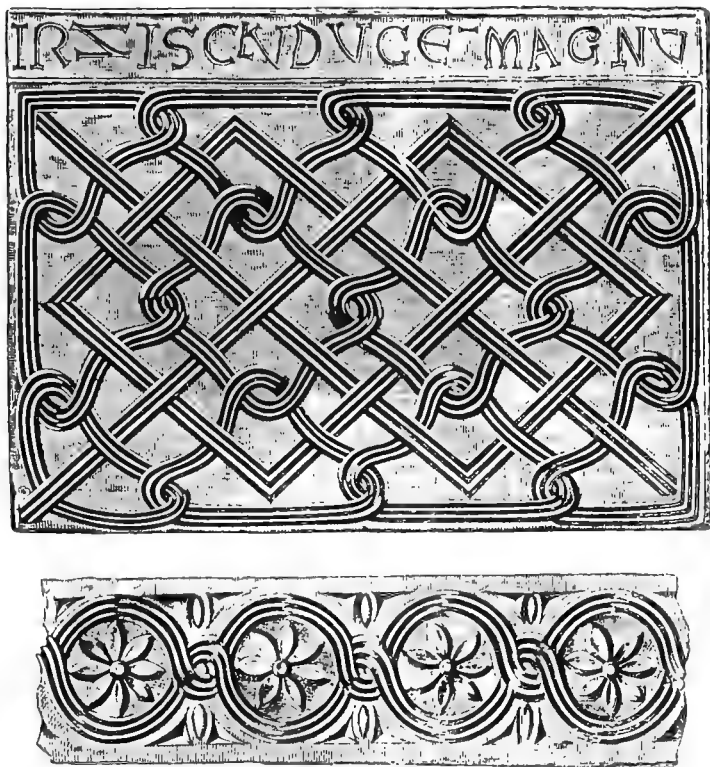


Fig. 108.—TWO SCULPTURED STONES FROM KAPITUL, KNIN (†).

the headquarters of episcopal authority, necessitated the construction of an ecclesiastical building worthy of the nation. The result was the cathedral church of St Mary on the *Kapitul*, the ruins of which were now exposed

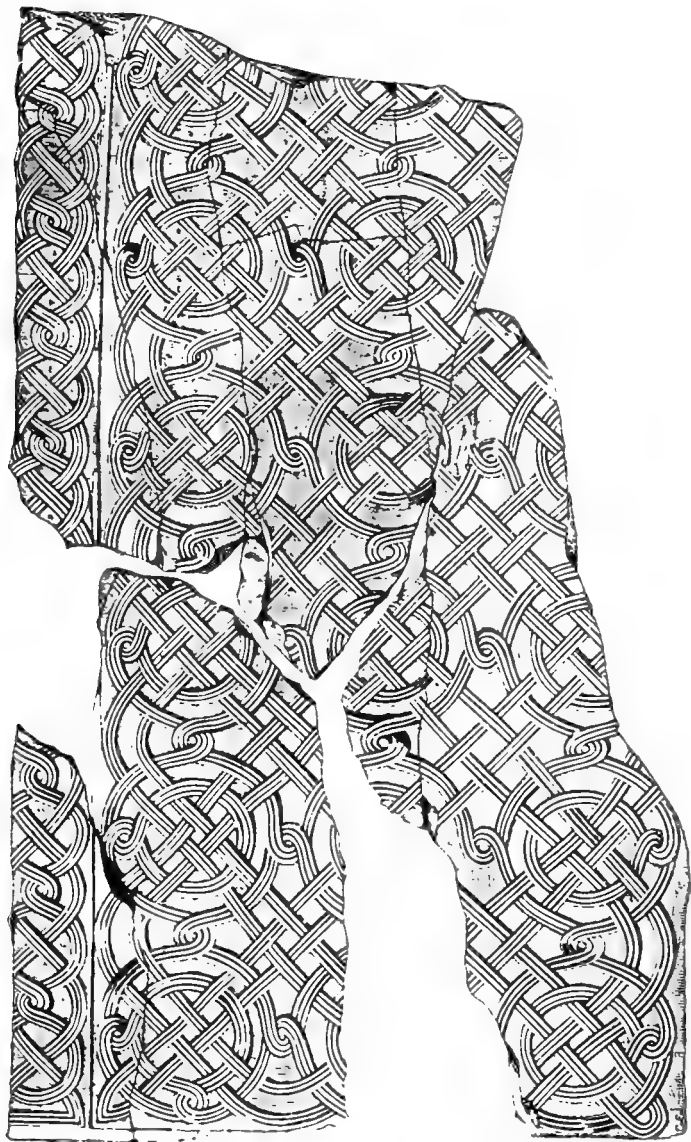


Fig. 109.—FRAGMENTS OF SCULPTURED STONE FROM BISKUPIJA, KNIN (†).

by the railway excavations. The date of its erection he puts before the year 1042.

Dalmatia fell into the hands of the Turks in 1522, and remained in their possession till 1688, during which time the cathedral and all its associated buildings were burned. When Knin came under the sway of Venice, in 1688, the cathedral was found in so ruinous a condition that all idea of its restoration was abandoned. From that time the *Kapitul* was used as the cemetery of the inhabitants of Knin, and the ecclesiastical ruins upon it became a quarry to the Venetians for building their fortresses.

Another locality which has yielded sculptured remains of a similar character is *Biskupija*, situated 8 *kilomètres* to the east of Knin. What form of structures stood here no one seemed to have any idea of, beyond the fact that they were ecclesiastical. Le Père Vinjalić, who saw them in 1746, states that there were three distinct ruins then visible—viz., (1) a “*rotonda ottangolare*,” which he believed to have been a church; (2) a building, then called the Church of St Luke, but which he considered to have been a bishop’s palace; and (3), at some distance from the former, the traces of a second church. In the vicinity of the second of the above-named ruins there was a cemetery “*con pietre di straordinaria grandezza sopra sepulture*,” in which fragments of sculptured stones with interlacements were disinterred from time to time (Fig. 109). These monuments have also been deposited in the museum at Knin.

On the morning of the day of the excursion to

Knin, Dr von Fellenberg and I were introduced to the "Archeologi cristiani," a company of about twenty gentlemen, mostly priests or other church dignitaries, who received us most cordially as their guests for the day. The country through which the railway from Spalato to Knin passes is in many parts a wilderness of sun-burnt rocks, and at that season of the year even the *Polje* and patches of cultivated land looked equally parched. As the railway journey alone (*tour et retour*) occupied nine hours, it may be easily imagined that under a broiling August sun the trip to Knin was not accomplished without some personal discomforts. While traversing the north coast of the Salonic bay the vines and olives, with which the district is studded, gave the landscape a fresh verdant aspect. After crossing the *Čikola* stream at Dernaš, the country also looked fertile, and as we approached Knin arboreal growth was a conspicuous feature of the environments.

From the railway station we walked in a body to the Museum, where Professor Bulić described, in Croatian and French, the more important objects in this strange collection. The Museum consists of two large rooms with a wide passage between them. The walls of one of the rooms were entirely covered with the fragments of sculptured stones, columns, pedestals, panels, cornices, &c., collected on the *Kapitul* and *Biskupija*. The interlaced patterns were the most common ornamentation; but other designs were also present, such as birds, rosettes, foliage, spirals, &c. One stone I noticed had a grotesque animal with great fore-claws represented on it. But

illustrations are more serviceable than words in conveying an accurate idea of interlacements, and so without further descriptive details I refer my readers to the three specimens figured.

Mr Bulić thinks that the two stone slabs from the *Kapitul*, which are nearly of the same size, formed part of a Ciborium belonging to a church of the ninth or tenth century; and with this idea he attempts to read the letters on them as part of the same inscription. The following is the reading he suggests, the italics showing the letters he supplied to complete the words :—

(*Suatas*) CLaVDVX HROATORum IN TEmpVS
D(*omini? regis? imperatoris?*) . . . (D)IRZISCL
aVum DVCEM MAGNUM.

In the other room were a few objects illustrative of the general archæology of the district, among which was a sword, characteristic of the Viking period, said to have been found in a grave in the neighbourhood of Knin. This sporadic example of a weapon from the Scandinavian area is interesting in showing the wandering tendencies of the age, and suggests the Adriatic as one of the more distant parts of Europe to which a Viking fleet paid a visit.

After the examination of the objects in the Museum the members dispersed with a request to meet at a definite time at the railway station, whence, by walking along the line, they could most conveniently visit the *Kapitul*. Having half an hour to spare, Dr von Fellenberg and I sauntered through the town. It was market-

day, and the long thoroughfare, which forms its only street, was crowded with country-people and cattle, together with a heterogeneous mixture of native goods thrown pell-mell along both sides of the road. We were greatly struck with the elegant, almost classical, forms of some of the home-made earthenware. Another object which attracted my attention was a large kind of handbarrow made entirely of wood, without a nail or any trace of iron about it. The wheels were constructed in a very primitive manner. Instead of spokes radiating from a central nave, there was in the interior of the wheel a stout rectangle, the four corners of which just touched and supported the surrounding rim. The segments thus formed were its only open spaces. Wheels constructed on somewhat similar principles have been found in a lake-dwelling at Mercurago in North Italy.¹ But the ordinary method of constructing wheels—i.e., by radial spokes—has been known and practised since the bronze and especially the early iron age, as may be seen in the *Kesselwagen* from Glasinac (Fig. 26).

Near the station we met a *rara avis* of the district, viz., a gaily-dressed girl, who carried on her head, neck, and upper part of the body, an extraordinary number of silver coins, being probably her entire fortune. One of the costume-figures in the National Museum at Sarajevo commemorates this custom, once common, but now almost extinct throughout the Balkan peninsula.

The visit to the *Kapitul* was made under a scorching sun, but after all there was little to be seen beyond the

¹ Lake-Dwellings of Europe, pp. 208, 209.

foundation outlines of a church and some other buildings. Over the church area the square bases on which the columns stood were exposed, but not a fragment of architectural ornamentation remained.

On returning to the station we were entertained by our kind hosts to an excellent dinner, served in the shade on the railway platform—the station being also the chief hotel of the place. A great military review had been held in the neighbourhood, and as the officers had made the hotel their temporary headquarters, we were soon in the midst of a large and distinguished company. The appearance of the Governor of Dalmatia on the scene was the occasion of a loyal bumper in his honour, which was received with the greatest applause.

Interlaced Ornamentations.

Of the many interesting memorials of the past met with in this part of the Balkan peninsula, not the least important are those interlaced slabs from the early churches of Knin. They belong to a style of decorative art once common among Christian communities throughout Europe and some parts of Asia and Africa. In the course of the distribution of this style over such an extensive area its details naturally underwent various modifications in the hands of different artists, especially those inhabiting countries far from the centre of its primary development, such as the Saxons, the Celts, and the Scandinavians. Nowhere has this divergence been more marked than within the

British Isles—so much so that, at one time, it was a current belief that interlacements were a creation of the Celtic mind. But wider observation has proved this to be erroneous, and shown that interlaced patterns were introduced from the East by the same channels which gave access to Christianity. At the same time, it is not denied that in the hands of the Celts these designs, especially in combination with the pre-existing spirals and trumpet-shaped spaces, have been manipulated in such a manner as to give their productions a remarkable individuality of character. Dr Joseph Anderson thus defines the specialism of interlacements in Celtic art:—

“It [interlaced work] was thus a common form of decorative ornament applied to many and various purposes, in many different parts of Europe, Asia, and Africa, both before and after the time when, in this country and in Ireland, it became one of the prevailing and dominant characteristics of Celtic art. But while it was thus used by other peoples as an occasional element of decoration, or as a style of ornament suitable for special purposes, it was nowhere developed into a systematic style of art, applied alike to manuscripts, metal-work, and stonework, unless in this country and in Ireland. In other words, it never gave a distinctive character to any art but Celtic art.”¹

This, however, is stating the case strongly. As a matter of fact, interlacements were used on the Continent as a special decoration, either alone or in combination with other objects of ornamentation, in circumstances as varied as in the Celtic area. Many patterns, sometimes elaborately constructed, may be

¹ Scotland in Early Christian Times, 2d Series, p. 113.

seen in stonework on lintels, door-posts, well-heads, fonts, capitals, ambos, the arches of baldachins, sarcophagi, crosses, panels for ciboriums, balustrades, altars, &c. In metal-work they are met with on altar-crosses, chalices, reliquaries, book-covers, &c., and specimens of such I have seen in museums or libraries in Florence, Venice, Cividale, Kremsmünster, Chur, &c. Nor are they unknown on wood and bone, as for example on the wooden churches of Scandinavia, which exhibit interlaced patterns, in combination with grotesque animal forms, of a *sui generis* character; also on a door in the church of St Maria im Capitol, Cologne.

As to the locality and circumstances which gave birth to this special ornament as a leading element in Christian art, there is now a consensus of opinion that it originated in the Byzantine school, which arose upon the downfall of the Roman empire, and thence spread throughout Europe, acquiring greater intricacy and significance as it reached the outward limits of Christendom. The Continental specimens on stonework are broadly characterised by a division of the interlacing bands into three ridges, a feature which is extremely rare in the Celtic area, the band in the latter case being either plain (Fig. 110), or divided into two ridges (Fig. 111). There is reason to believe that this simplification of the band, though in point of ornamentation it may be regarded as a backward step, was due to necessities imposed upon the artist in his efforts at greater elaboration. It arose in consequence of the art having been first introduced to the Celtic area by means of

book - ornamentation. It would have been an easy

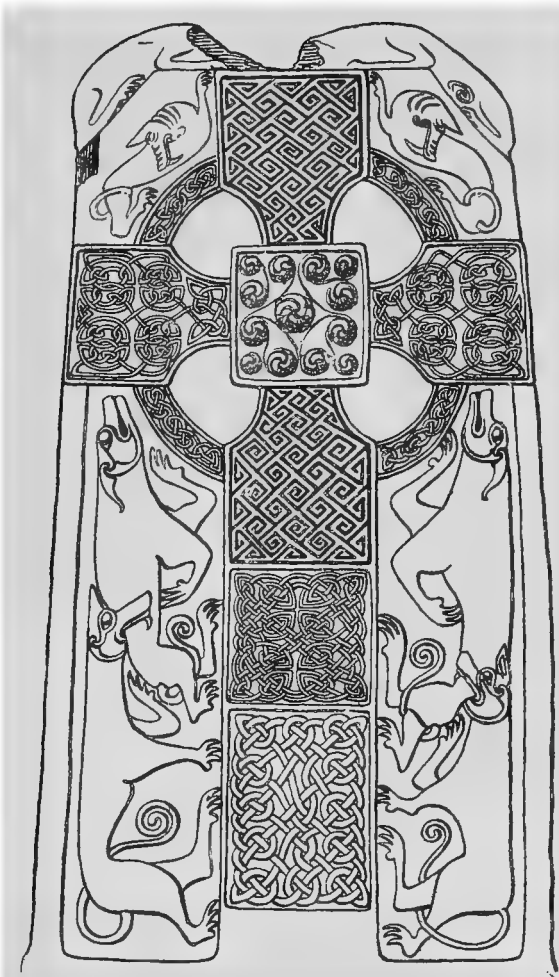


Fig. 110.—SCULPTURED STONE IN THE CHURCHYARD OF
ST MADOES ($5\frac{1}{2}$ feet high).

matter to divide the bands into two or three ridges

on the large scale in which they were executed on stone, but very difficult in a



Fig. III. — SCULPTURED STONE
FROM GLENLUCE (5½ feet high).

confined space such as the page of a book. Moreover, when the interlacing bands are very small their subdivision destroys the artistic effect of the general ornament, whereas on stonework it produces the very opposite effect. The persistent recurrence of the three ridges in these bands throughout the Continent may suggest that they possessed a symbolical meaning, as perhaps the unity of the Trinity, like the triquetra. But, however this may be, they seem to have been lost sight of in the extremely intricate book illustrations which began to be produced in Ireland about the end of the seventh century. As these manuscript ornamentations were the designs from which the workmen in stone copied their details, they naturally adopted the plain band.

In support of this explanation I may mention the fact that in the illumination of the Gospel of St Mark in the

'Book of Deer,' Plate VIII., which has an interlaced border composed of three plain bands on each side, the artist commenced at the top, on the left hand, by dividing the bands into three ridges, but discontinued the operation after a plait or two had been so executed. Another somewhat similar case is the tympanum of the south portal of the cathedral at Worms. Here, half of an arch above the door is ornamented with interlacements, and the other with floriated scroll-work. But the special point in favour of my contention is that the bands in the former begin with three ridges in each, and after traversing a short space one of the ridges is dropped, and the design is then continued in the simpler form.

The materials for a comprehensive investigation of the geographical distribution and constructive affinities of European interlacements are far more abundant than is generally supposed, and it is a matter of astonishment that this fascinating subject has been allowed to remain so long without a competent exponent. The greatest difficulty about such an undertaking would be the extent of the area over which the existing materials are scattered. Moreover, in analysing, comparing, and tabulating such a variety of designs, descriptive details, without illustrations, would be almost unintelligible. I have incidentally come across so many examples in so many localities throughout Europe, that the barest notice of them would exceed my present limits. And yet I am reluctant to part with the subject without giving a few illustrations to show what the

traveller may expect to find when put on the proper trail.

When the *Capella palatina* in the palace of Diocletian was dedicated to Christian worship, in the fourteenth century, a baptismal font in the form of a Greek cross was erected in its interior. The panels of this font consist of decorated marble slabs taken from an old altar in a religious building of the eleventh century, "probabel-



Fig. 112.—TWO STONE PANELS OF THE FONT IN BAPTISTERY, SPALATO.

mente dal Duomo." Figs. 112 and 113 are illustrations of the ornamentation of four of these panels, from which their similarity to the Knin slabs will be at once apparent. According to Dr Bulić the figure group represents the donor of the monument prostrate before Christ, who sits on a throne with a crown on the head and a cross in the right hand, while a saintly personage stands looking on. (Portion of the slab to the left of the

sitting figure is wanting.) Other commentators, however, think that the sitting figure is intended for a Croatian king.

In the Museum at Spalato there is a fragment of a sarcophagus adorned with interlaced work, thus described in the 'Guida di Spalato e Salona':—

"Frammento di sarcofago del nono sec. trovato nelle vicinanze di Sebenico, con lavoro a bassorilievo di

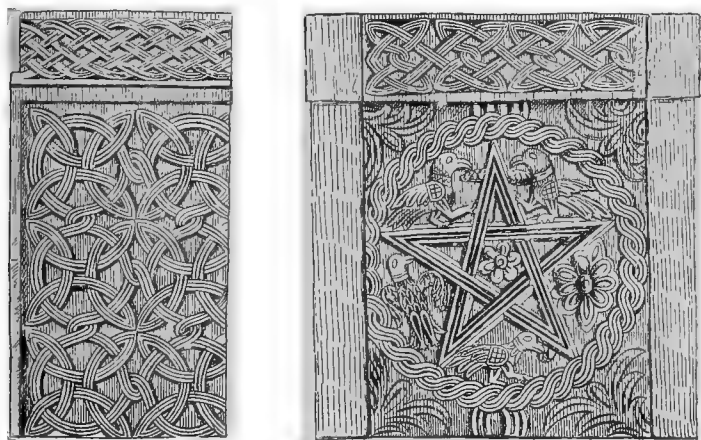


Fig. 113.—TWO STONE PANELS OF THE FONT IN BAPTISTERY, SPALATO.

nastri più volte doppiati ed intrecciati di cosidetto stile langobardo."

From the collection of medieval monuments in the Museum of St Donatus in Zara, Professor Smirich gives illustrations of a number of stone fragments, ornamented with interlacements taken from some of the earliest churches in the town.¹ Among them are four arches of

¹ *Ephemeris Bihačensis*, pp. 17-20, and Plate XIX.

a baldachin found while demolishing some old buildings attached to the campanile of the Duomo. These are ornamented after the style of Fig. 114, which represents one of the arches of a similar canopy in the church of St Appollinare in Classe, in Ravenna. Two other monuments, with groups of figures in bas-relief representing incidents in the life of Christ and bor-



Fig. 114.—ONE OF THE ARCHES OF A BALDACHIN IN THE CHURCH OF ST APOLLINARE IN CLASSE, RAVENNA.

dered with interlaced patterns, are from the church of St Domenica in Borgo. Besides these, there are numerous fragments of crosses, slabs, pillars, &c., all of which, according to Professor Smirich, are products of the ninth century. Miss Stokes¹ gives an illustration of a portion of a font belonging to this class

¹ Pilgrimage to the Apennines.

of work found at Pola. It would therefore appear, although I cannot assert this from actual observation, that similar remains might be found in many other towns on the Dalmatian coast.

When we enter Italy these peculiar art remains are met with in the greatest profusion almost everywhere. I have noted examples on stone at Rome, Venice, Murano, Trieste, Cividale, Ravenna, Ancona, Bologna, Verona, Parma, Milan, Genoa, Turin, Como, Pisa, Lucca, &c. They are to be seen, sometimes in museums as fragmentary relics from old churches, and sometimes as disused materials rebuilt into the walls of later churches, or *in situ*, as in the church of St Ambrogia, Milan, and other instances.

That interlaced patterns were used without any accessory elements, being themselves the chief ornament, is proved by figs. 115 and 116, the former representing a circular ornament in the north wall of the church of St Mark in Venice, and the latter a free-standing cross now in the church of St Petronio, in Bologna. Figs. 117 and 118 show interlacements in combination with other Christian symbols, the former from a monument now in the Museum at Murano, but previously in the Abbey of St Cipria, and the latter from a sarcophagus in the church of St Apollinare in Classe, Ravenna. Fig. 119 represents a *pozzo* (well-head) said to have been taken from Murano, and now (1886) publicly used on one of the wells in the town of Venice. I give this illustration as an example of a pattern showing two ridges in the interlacing band, a rare occurrence in

Italy. It has the peculiarity of being placed topsy-turvy, a circumstance which probably suggests that the people who fixed it in its present position no longer paid any deference to its symbolism. Looking into its



Fig. 115.—CROSS IN NORTH WALL OF THE CHURCH OF ST MARK, VENICE.

interior, I noticed on its under side the old tracks of the bucket-rope, showing it had been in use elsewhere.

In the cathedral at Chur, in Switzerland, are some beautiful slabs of interlaced work which belonged to the ambo of the old church. A few of them are now used in the construction of an altar, and others are

in the sacristy and in a small museum. They are described and illustrated in four plates, by Dr Keller, in the Proceedings of the Antiquarian Society of Zurich, vol. xi. The first plate shows an entire cross covered with interlacements and a couple of lions beneath the



Fig. 116.—SCULPTURED CROSS NOW IN THE CHURCH OF ST PETRONIO, BOLOGNA.

arms. The workmanship is very similar to that on the specimens at Knin. In the sacristy may also be seen a bronze casket with raised interlacements of plain bands, said to be a work of the eighth century and of Irish origin. It also is figured and described by Dr Keller in the above-named work.

This leads me to give, as another remarkable specimen of interlaced work in metal, an illustration of a chalice in the monastery of Kremsmünster, which bears an inscription to the effect that it was the gift of Duke Tassilo, who founded the monastery in the year 777 A.D. It is made of copper with silver niello and golden ornaments. The half-length portraits of Christ and several martyrs, which, in oval medallion fields, cover the cup and the foot, are surrounded by a border of interlace-



Fig. 117.—PART OF THE DECORATION ON A STONE MONUMENT IN THE MUSEO CIVICO, MURANO.

ments, the intervening spaces being filled in with dragonesque work. The cup is separated from its lower part by a string of pearls. The total height is ten inches. The illustration of it here given (Plate XXIX.) is from a photograph kindly taken for me by Professor Sebastian Mayer of Kremsmünster. This chalice has also been claimed as a work of Irish art.¹

I will conclude this short review of interlacements by directing attention to a remarkable example in

¹ See Royal Society of Antiquaries of Ireland, vol. i., 1870.

woodwork — viz., the door in the north transept of the church of St Maria im Capitol, in Cologne (consecrated in 1049 by Pope Leo IX.) This door is divided into a number of panels, each containing a



Fig. 118.—END OF A SARCOPHAGUS IN THE CHURCH OF ST APOLLINARE
IN CLASSE, RAVENNA.

group of figures in carved wood representing scenes in the life of Christ. The panels are surrounded by borders of interlaced work made by the intertwining of three or four bands into a variety of patterns, each band being ornamented by the three ridges so per-

sistently adhered to in this class of work throughout Southern Europe.

But the imperial sway of fashion influences not only the doctrines, but the external manifestations of religion, and so the time came when the interlaced ornament ceased to occupy even a secondary place in the culture

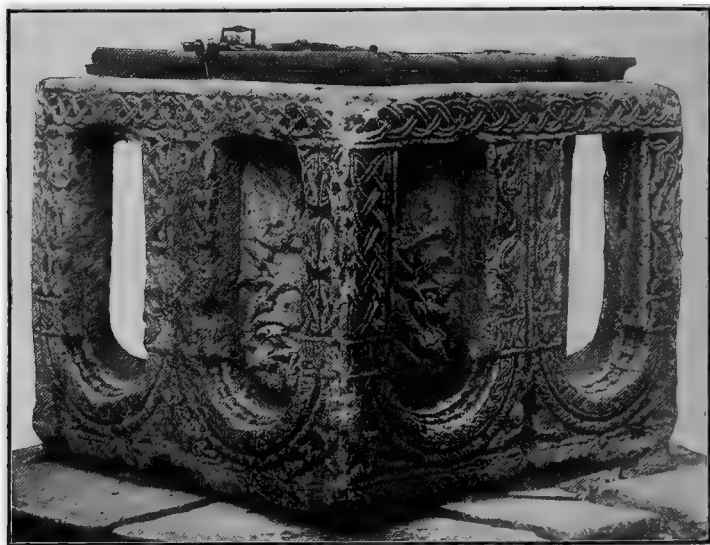


Fig. 119.—A POZZO IN AN OPEN COURT IN VENICE.

of the Christian faith. This wave of neglect seems to have spread over Europe with great rapidity, as we find, in the twelfth and thirteenth centuries, monuments which a few generations earlier were landmarks in the Christian world, now utterly discarded and treated as if they were mere stone rubbish. On the 14th August 1891 I had an opportunity, on the occasion of the visit of



CHALICE FROM KREMSMUNSTER.

PLATE XXIX.

the Royal Archæological Institute to St Andrews, of inspecting certain fragments of early sculptured crosses, with interlaced patterns, which had been built into the foundation gable of the Cathedral church of that town—a building erected about the middle of the twelfth century. Such discoveries are notoriously frequent, not only in Scotland, but over a large part of Europe. In the atrium of St Mark's Church, Venice, may be seen a huge stone lintel stretching across the doorway, having its under side ornamented with interlaced work which is partly concealed by the capitals, thus showing that it was not specially executed to adorn its present position. Such memorials, when subsequently utilised, are sometimes placed as if the builders had a lingering tradition of their former importance. Thus, in the south wall of the Cathedral of Parma are two quadrants of circles with this kind of ornamentation conspicuously displayed. Also, in the Cathedral of Pisa are two stones with interlacements, built into the gable, one of which, undoubtedly, had served some previous purpose, as it bears an inscription which breaks off abruptly.

Similar observations could be greatly multiplied if necessary. But enough has been said to show that whatever might have been the *raison d'être* of the halo which formerly surrounded interlacements it vanished by the end of the twelfth century, and now their special art characteristics, symbolism and distribution, have become a fit subject for antiquarian research.

CHAPTER IX.

SKETCH OF THE UNWRITTEN RECORDS OF BOSNIA AND
HERZEGOVINA.

IN the varied materials discussed in the preceding pages there is ample evidence to show that the provinces of Bosnia and Herzegovina possess not only scenic attractions of the first order, but also antiquarian remains, bearing on the development of European civilisation, of the highest importance. Indeed this portion of the Balkan peninsula promises, at no distant date, to become a common hunting-ground for archæologists, historians, and religionists, not to mention the representatives of the various branches of natural science, who find themselves here on rich and comparatively unknown grounds. Although the veil which has so long concealed this fertile field of research from the scrutiny of modern investigators has only recently been removed, we have in the discoveries already recorded some substantial contributions to science, especially in the department of prehistoric archæology. But the subjects in this department so fully discussed are merely

disconnected finds, and consequently they give but an imperfect indication of their chronological relationship to analogous remains outside their own geographical areas. The impression left on the mind of the general reader by these somewhat controversial discussions must therefore be unsatisfactory, if not bewildering. To obviate in some measure this disadvantage, I now propose to deal with the unwritten records of Bosnia and Herzegovina in a systematic manner, by way of eliciting from them a brief outline of the successive phases of civilisation which flourished in these lands in prehistoric times. In carrying out this intention I find it unnecessary to bring into requisition the system of classification in vogue in Western Europe, known as the three ages of stone, bronze, and iron, as it is a question how far its nomenclature may be applicable to this part of Europe.

General Remarks.

In reconstructing the outlines of a bygone civilisation, the very existence of which finds no place among the written records of humanity, we have to lay a foundation on the substratum of general principles already established, not necessarily by archæological methods. The respective dates at which the art of writing came into use in different portions of the globe, extend over such a wide range of time that the interval between some of them has to be measured, not by centuries, but by millenniums. Without casting our survey beyond the regions bordering on the Mediterranean we find this

statement exemplified. The written records of Egypt go back to some 3000 years B.C., while those of Britain and other parts of Western Europe reach, at the utmost, only to Roman times; and even the earliest literature of Greece comes well within the first ten centuries preceding the Christian era.

Then, again, before metals were known, mankind carried on the affairs of social life with no better tools than could be manufactured out of stone, bone, wood, &c. The date at which this Stone Age came to an end, or rather when the primitive implements and tools were being superseded by superior ones made out of metals, varies greatly in different countries. The controversy long waged among archæologists as to whether iron was utilised before the art of making bronze was discovered is, from an archæological point of view, of little importance. The really interesting problem in regard to these early discoveries, is the order in which bronze and iron implements came into general use. On this point I do not see how there can be any dubiety in the matter, as history, philology, and archæology are at one in representing bronze as having been so used long before iron.¹ Among the old-world civilisations in the valleys of the Nile and the Euphrates, there can be no doubt whatever that bronze was in use for at least 3000 years B.C. In the Bronze-room of the Louvre, there is a bronze

¹ For an epitome of a celebrated controversy as to the existence of a Bronze Age in the north of Europe, see 'Études sur l'Âge de Bronze de la Hongrie,' Undset, 1880.

statuette with cuneiform inscriptions found on the bank of the Euphrates which, according to experts, cannot be less than 1700 B.C., but M. Jules Oppert assigns to it a much greater antiquity.¹ Dr J. H. Gladstone read a paper at the British Association in 1893, "On Tools and Ornaments of Copper and other Metals from Egypt and Palestine," of which the following is an abstract:—

The author gave an account of analyses of various specimens of metallic tools and ornaments found by Dr Flinders Petrie in Egypt and Mr Bliss in Palestine. The oldest copper tools were from Meydum, and date back probably to the fourth Egyptian dynasty, about 3500 B.C. Other copper tools were obtained at Kahun, and date 2500 B.C. These contain small quantities of arsenic, antimony, &c.; but among the specimens from Meydum was a rod of bronze containing about 9 per cent of tin. Bronze needles were also found at Kahun, and of course bronze was abundant in later periods. That tin was known in the metallic condition was evidenced by a finger-ring made of tin belonging to the eighteenth dynasty, about 1400 B.C. Lead was often mixed with the bronze for the casting of statuettes.

The mound of Tel-el-Hesy, which is believed to be the Lachish of the Scriptures, consists of the ruins of several successive Amorite towns, above which are the ruins of the Israelitish town. A copper tool from the lowest stratum, and which could not be of later date than 1500 B.C., was made of a very red, hard, brittle metal, of a specific gravity of only 6.6, and consisted of cuprous oxide to the extent of about 25 per cent. This oxide, no doubt, gave the desired hardness to the copper. In the strata, dating from 1400 B.C. to 800 B.C., occurred many arrow-heads and other objects made of bronze. In the upper Israelitish portion the bronze imple-

¹ See an article in Longperier's Works, vol. iii. p. 333.

ments were gradually replaced by iron. At Lachish there were also found a wire of almost pure lead, and what seemed to be a bracelet of silver. The latter was coated with chloride of silver, doubtless from the chlorides in the soil, and contained 6·5 per cent of copper and 1·44 per cent of gold.

At Illahun, in Egypt, some beads or buttons were found which proved to be of metallic antimony badly reduced from the sulphide. They date back to about 800 B.C.¹

At what period iron was first used as a substitute for bronze in the manufacture of cutting implements is, however, a question still shrouded in mystery. Less attractive than bronze for the manufacture of ornamental objects, and, in its primary condition, too soft to compete with the former for cutting purposes, iron might have been known for ages before it came into general use. On this point the following remarks by Professor Rolleston may be quoted with interest:—

I am inclined to think that the Iron Age would be better spoken of as the "Steel Age." For there is no reason why we should not suppose that iron, as distinct from steel, may have been in the hands of many tribes before they came into the possession of bronze; and if the iron was soft iron merely, bronze would be much more useful and trustworthy for the purposes of war and the chase, for which so many ancient and modern races have mainly lived. A very striking instance from Roman history of the comparative uselessness of untempered iron tools for such purposes is given us by Polybius, *Hist.*, ii. c. 33. There we read, in a probably somewhat unjustly unfavourable account of that somewhat rare animal, a liberal military commander, that his colonels saved him, as colonels have in later times saved other generals from disasters, by the following

¹ Report of B. A., 1893, p. 715.

tactics. The Gauls came to the fight armed with long point-less soft iron broadswords. These, the Roman tribunes had observed, bent after each blow delivered on to a sufficiently resistant body. Such a body they sought and found in the *pilum*—that best of pikes or bayonets, with which a man could parry or thrust, but with which he could not strike or slash. The brave barbarian came up, *ferox viribus*, brandishing his broadsword; its downward strokes were parried, and the malleable iron, glancing downwards, bent as malleable iron will do, and left its gigantic owner at the mercy of an Italian, some 5 feet 6 inches in stature, who then brought into this sword-play a weapon which he had been taught to use *punctim, non cœsim*. The same tactics succeeded at Culloden, as the tactic of thrusting and giving point always will succeed when masses of men in rows, not isolated individuals merely, are pitted against each other on the thrusting *versus* the slashing plan, though the slashing sword at Culloden was of good steel enough. The point for our present purpose in this story of the victory of Flaminius over the Isumbrian Gauls lies in the proof it gives us of the existence, so lately in the world's history as B.C. 224, of a warrior-race fighting with soft iron instead of steel swords.¹

It would appear from a passage in Herodotus (lib. ii. c. 152) that in Egypt iron had superseded bronze for military purposes some time prior to the seventh century B.C., while at the same date the Carians and Ionians were armed with bronze. We know also that in the time of the historian himself (400 B.C.), iron had everywhere come into general use among the Greeks.

On the other hand, Professor Virchow made the astounding statement at the International Congress of Archæologists at Buda-Pest that the Pyramids of Egypt

¹ Reprint from Transactions of the Bristol and Gloucestershire Archæological Society, p. 2.

had been constructed by means of iron tools. "Jusque dans ces derniers temps," says he, "on croyait qu'en Égypte le fer avait été employé fort tard et que les pyramides ont été construites sans l'emploi d'instruments en fer. Mais enfin on a trouvé ces instruments, et maintenant tout le monde est convaincu que les pierres des pyramides ont été travaillées avec du fer."¹

As the manufacture of bronze implies a previous knowledge of its component metals, we might have to inquire—had the actual dates of the discovery of the metals been the important point at issue—if there had been a Copper, if not also a Tin Age. A few ornamental objects made of the latter metal have been found in the Swiss lake-dwellings and in various other localities, but no archæologist has advocated that they are of such a character as to constitute a Tin Age. It is different, however, with copper; and as its claim to the distinction of being the first metallic age in Europe is supported by such distinguished archæologists as Dr Much² of Vienna and Von Pulszky³ of Buda-Pest, it is desirable, as an opponent to that theory, that I should here devote a few words to its consideration.

The finding of so many copper objects (among them

¹ Congrès International d'Anthropologie et d'Archéologie préhistoriques, 8^e Session, 1876, vol. i. p. 251. In answer to a question Dr Flinders Petrie stated at the Ipswich meeting of the B.A. that the ancient Egyptians sculptured granite by copper tools and emery. For the method of perforating and sawing stone with sand and soft wood see 'Lake-Dwellings of Europe,' p. 504.

² Die Kupferzeit in Europa und ihr Verhältniss zur Cultur der Indogermanen.

³ Die Kupferzeit in Ungarn. Buda-Pest, 1884.

being a variety of cutting tools) in Hungary and on the sites of some lake-dwellings in Central Europe, especially that at Vinelz, on the shore of Lake Bienné, has been regarded by some as conclusive evidence that Europe passed through a Copper Age before either bronze or iron came on the field. I have elsewhere discussed the bearing of these objects from the lake-dwellings on the problem at issue, and, having no modification to make on the conclusions arrived at, I may as well repeat the words with which I then summed up the argument :—

I fancy the true explanation is that the lake-dwellers became first acquainted with metal instruments in the form of imported bronze objects, especially swords and daggers, and that this suggested to them, and directly led to, the discovery of the art of reducing the pure metal from the copper ore. Local or peripatetic coppersmiths, in trying to imitate these imported implements, went on manufacturing copper objects until they learned the art of hardening the metal by the proper admixture of tin. This knowledge might have been originally kept a great secret. But, however this may be, it is certain that the secret was not long kept, as we soon find the lake-dwellers in full possession of the art of manufacturing all manner of bronze objects. Ignorance of the nature of the alloy, or perhaps the scarcity or dearth of tin, leading sometimes to wilful deception on the part of the fabricators, may partly account for the production of some of these copper implements. It has also been suggested that the repeated melting of bronze causes the tin to disappear, and that in this way copper objects may have come about. But this explanation is inapplicable to those from the lake-dwellings, as they are all of the most primitive type, and were undoubtedly manufactured during the initiatory stages of the metallurgic art.—*Lake-Dwellings of Europe*, p. 515.

It is quite possible that copper and tin, as individual

metals, were known long before the lucky hit of mixing them in the proportions which made metallic instruments immensely superior to those of stone. But, in calling this great discovery a "lucky hit," I may be injuring some unknown philanthropist who, by the exercise of pure synthetic reasoning, arrived at this result. Seeing that a knife made of copper was too soft for cutting purposes, and that one of tin was too hard and brittle, I do not think it would have been beyond the reasoning capacity of an observant man of the Stone Age to have suggested and completed the experimental problem which so successfully solved the difficulty.

Another thing we must bear in mind is, that the primary dispersion and wanderings of mankind took place by land and not by sea. The invention of the "dug-out" as a means of transport by water forms therefore an important event in the progress of man towards civilisation. This primitive boat was known to the inhabitants of Europe from the very beginning of the neolithic age, as may be shown from the fact that remains of canoes have been found among the *débris* of the earliest lake-dwellings. But long and extensive voyages could hardly have been undertaken with "dug-outs," so that their use was probably restricted to crossing rivers, lakes, and bays along the indented shores of the mainland. The origin of navigation goes, however, so far back that its rudiments are lost in the dim vista of prehistoric ages, and by the time boats are first mentioned in history they had already acquired the essential parts of the ship of

modern times—a statement which finds some corroboration in the pictorial representation of the ancient Nile boat on the tombs of Thebes.

There can be little doubt that modern civilisation has its rootlets in the Old World developments which took place in the regions around the eastern portion of the Mediterranean, and that Western Europe came ultimately under their influence. But social improvements emanating from Egypt, Assyria, Phœnicia, Greece, and Rome, took a long time to become absorbed by the inhabitants of the more distant parts of the world, and hence, while some people still lingered in the Stone Age, those of the more central regions were already in full possession of the advantages of the Bronze Age. As the means of communication by sea extended, the products of the later Iron Age would find their way to distant countries in a much shorter time than by the old land routes. The duration of the Bronze Age in different countries was therefore subject to great variations, being shorter along the sea routes and the great commercial highways, and more persistent in out-of-the-way places.

One other preliminary topic remains to be briefly noticed—viz., the relation between Quaternary and Neolithic man in Europe. That the former lived in the valleys of the Thames, the Rhine, the Rhone, and the Danube, as well as in Italy, Algiers, Egypt, and other parts of the world, during and subsequent to the glacial period, must be accepted as an uncontroverted fact. In an address recently delivered at the

Royal Society of Edinburgh, I described Palæolithic man and his environments as follows:—

The gradual interposition of such a huge mass of ice over a large portion of Europe—thus changing a subtropical climate to one of Arctic severity—was followed by representatives of the flora and fauna of northern regions; and it would appear that a wide zone in Central Europe became a common habitat for two distinct faunas—one hailing from the north and the other from the south. It is difficult to account for the precise conditions which led to the intermingling of such different species as the mammoth, rhinoceros, Irish elk, cave-bear, cave-tiger, hyena, reindeer, hippopotamus, horse, &c. But whatever may have been the true explanation, whether interglacial genial periods, or great extremes of temperature in the summers and winters, or any other cause, it is certain that a succession, or successions, of such climatal alterations taxed the life-capacity and power of endurance of these animals to a degree which ultimately became unbearable. Now they are almost all gone from these localities. A number of them have become extinct, and others are still represented in more congenial climates, according as they possessed northern or southern proclivities. Man was the contemporary of them all, and he is the only conspicuous animal which successfully battled against these intensely adverse circumstances. He has emerged from this singular contest not altogether scathless, but bearing traces of the means to which he resorted in the struggle for life. An upright posture, a manipulative hand, and a highly reflective brain are trophies of which he may be justly proud; but, like scars, they tell a tale of many battles. The history of these departed mammals, among which Man in his youthful days lived, moved, and had his being, throws much light on the ways and methods by which he accommodated himself to the exigencies of the climatal instability which obtained in quaternary times.¹

¹ Proceedings, vol. xx. p. 230.

It is difficult to realise how great has been the effect of apparently slight physical changes in the environments on the career of man. Nearly half the perimeter of Europe at the present time is occupied by a continuous chain of inland seas and lakes which, it is positively certain, have undergone, from time to time, changes of such magnitude as to greatly modify its geography and climate. The significance of this subject will be appreciated from the following passage taken from an article by the late Professor Huxl  y, entitled, "The Aryan Question and Prehistoric Man":—

At the present time, four great separate bodies of water—the Black Sea, the Caspian, the Sea of Aral, and Lake Balkash—occupy the southern end of the vast plains which extend from the Arctic Sea to the highlands of the Balkan peninsula, of Asia Minor, of Persia, of Afghanistan, and of the high plateaus of Central Asia as far as the Altai. They lie for the most part between the parallels of 40° and 50° N., and are separated by wide stretches of barren and salt-laden wastes. The surface of Balkash is 514 feet, that of the Aral 158 feet above the Mediterranean, that of the Caspian 85 feet below it. The Black Sea is in free communication with the Mediterranean by the Bosphorus and the Dardanelles; but the others, in historical times, have been, at most, temporarily connected with it and with one another, by relatively insignificant channels. This state of things, however, is comparatively modern. At no very distant period the land of Asia Minor was continuous with that of Europe, across the present site of the Bosphorus, forming a barrier several hundred feet high, which dammed up the waters of the Black Sea. A vast extent of eastern Europe and of western central Asia thus became a huge reservoir, the lowest part of the lip of which was probably situated somewhat more than 200 feet above the sea-level, along the present southern watershed of the Obi, which flows into the Arctic Ocean. Into

this basin, the largest rivers of Europe, such as the Danube and the Volga, and what were then great rivers of Asia, the Oxus and the Jaxartes, with all the intermediate affluents, poured their waters. In addition, it received the overflow of Lake Balkash, then much larger; and, probably, that of the inland sea of Mongolia. At that time, the level of the Sea of Aral stood at least 60 feet higher than it does at present. Instead of the separate Black, Caspian, and Aral seas, there was one vast Ponto-Aralian Mediterranean, which must have been prolonged into arms and fiords along the lower valleys of the Danube, the Volga (in the course of which Caspian shells are now found as far as the Kuma), the Ural, and the other affluent rivers—while it seems to have sent its overflow northward, through the present basin of the Obi. At the same time, there is reason to believe that the northern coast of Asia, which everywhere shows signs of recent slow upheaval, was situated far to the south of its present position. The consequences of this state of things have an extremely important bearing on the question under discussion. In the first place, an insular climate must be substituted for the present extremely continental climate of west central Eurasia. That is an important fact in many ways. For example, the present eastern climatal limitations of the beech could not have existed, and if primitive Aryan goes back thus far, the arguments based upon the occurrence of its name in some Aryan languages and not in others lose their force. In the second place, the European and the Asiatic moieties of the great Eurasiatic plains were cut off from one another by the Ponto-Aralian Mediterranean and its prolongations. In the third place, direct access to Asia Minor, to the Caucasus, to the Persian highlands, and to Afghanistan, from the European moiety was completely barred; while the tribes of eastern central Asia were equally shut out from Persia and from India by huge mountain-ranges and table-lands. Thus, if the blond long-head race existed so far back as the epoch in which the Ponto-Aralian Mediterranean had its full extension, space for its development, under the most favourable conditions, and free from any serious intrusion of foreign

elements from Asia, was presented in northern and eastern Europe.¹

That the Mediterranean region has undergone oscillations in level may be shown in many ways, notably by the extension of some African species of mammalia into Europe during quaternary times—a fact which involves a land connection across the present sea. Professor Boyd-Dawkins states that an elevation of 500 fathoms would convert the Mediterranean into two inland seas, set the whole bed of the Adriatic dry, and cause the islands of the Grecian Archipelago to rise high above the surrounding plains.² The mind is apt to revel in speculation when contemplating the possible effect of such changes on the contemporary career of Man. If the Mediterranean had ever been cut off from the Atlantic, its surface would have sunk far below sea-level on account of the great evaporation going on from its surface, so that its twin basins would have been analogous to the Sea of Galilee and the Dead Sea, now occupying the valley of the Jordan. In these circumstances the larger portion of the present Mediterranean basin would be dry land and full of animals sporting in a tropical climate. The supervening changes, consequent on the advent of the Great Ice Age and the sinking of the land so as to re-admit the waters of the Atlantic into its partially dried-up bed, would have been, like Noah's flood, a dire calamity to Man (or the being which was his precursor)

¹ Collected Essays, vol. vii. p. 299.

² Cave-Hunting, p. 382.

and to his mammalian associates who lived within the Mediterranean basin. Pressed on the north by a gradual encroachment of the ice and a colder climate, those occupying European territory would have been driven southwards. But, alas! to find the old highways between the two continents demolished by submergence, and so they would be caught, as it were, in a trap, like animals driven into an artificial pen. Similar causes would have cut off the Palæolithic colonists, who had found their way into Britain, from intercourse with their Continental congeners.

The striking contrast which has been proved to have existed between Quaternary man, his works and methods of living, and the parallel phenomena of neolithic civilisation, is thus admirably put by Professor Boyd-Dawkins:—

If, however, the results as I read them, over the whole of Europe, point to the great interval dividing the Palæolithic from the Neolithic age, and to the great geographical break between them, still more shall we find these conclusions confirmed by the contrast between the Palæolithic and Neolithic civilisations. On the one hand—it is unnecessary to labour the minute details—the Palæolithic man lived by hunting the wild animals on the Pleistocene continent, armed with rude implements of stone and bone, and ignorant of all the domestic animals, including the hunting-dog. He was a fire-using nomad, without fixed habitation. On the other hand, the Neolithic man appears before us a herdsman and tiller of the ground, depending upon his domestic animals and the cultivated fruits and seeds rather than on hunting; master of the potter's art, and of the mysteries of spinning and weaving, and seeking the materials of his tools by mining. He lived in fixed habitations, and buried his dead

in tombs. There is obviously a great gulf fixed between the rude hunting civilisation of the one and the agricultural and pastoral civilisation of the other, a gulf which has not yet been bridged over by discoveries in any part of the world.¹

When Neolithic man appeared in Europe the physical causes which were slowly affecting the land distribution had already moulded this continent to much the same limits as it now possesses. This indicates a recent and very short period of occupancy in comparison with the range of Palæolithic man. The important question then arises, What became of the latter during post-glacial times? Did he become extinct in Europe, like so many of the contemporary mammalia, or did he live on to shake hands with his Neolithic brother, who, meantime, had found means elsewhere of bettering his condition in life?

The view generally held by some of our ablest palæontologists is that the continuity of human life in Europe has been broken by a long interval of time. M. Gabriel de Mortillet characterises this interval by such expressions as “une grande lacune,” “un hiatus,” “une véritable révolution.”² Sir John Evans is equally emphatic in regard to the extinction of Palæolithic man in Britain;³ nor does Professor Huxley do more than express caution against a hasty conclusion.⁴

On the other hand, those who aim at proving a direct development from the one civilisation to the

¹ Journal Anth. Institute, vol. xxiii. p. 248.

² Le Préhistorique, p. 479.

³ Ancient Stone Implements, p. 618.

⁴ Collected Essays, vol. vii. p. 318.

other in Western Europe seem to me to be working on a false principle.¹ No legitimate inference can be drawn from a graduated series of stone implements, picked up on the surface, by way of bridging over the acknowledged hiatus in the two civilisations, as in all large finds and workshops of neolithic implements a sufficient number of unfinished, or roughly-made specimens, may be readily found which, in appearance, can be paralleled with later palæolithic types. As evidence of the truth of this assertion I may instance the station of Butmir, previously described, where a large quantity of such rudely-made implements has been collected and partly figured in the monograph on this find just published.²

It appears to me that the difficulty about this so-called hiatus arises partly from a misconception of the facts. All are agreed as to the length of time which has intervened since the appearance of Palæolithic men in Europe. Although their progress to a higher civilisation had been extremely slow, still the handicraft objects picked up along the path pursued by them indicate, towards the end of the journey, not only an advance in mechanical skill, but a deeper insight into the phenomena around them. Hence the magnitude of this hiatus depends on the point of time in their career with which the products of Neolithic man are compared. It is not an uncommon occurrence to come

¹ See J. A. Brown, "On the Continuity of the Palæolithic and Neolithic Periods," 'Journal of Anth. Institute,' vol. xxii. p. 66.

² Die Neolithische Station von Butmir, Pl. XV.

upon a cave containing neolithic and palæolithic remains separated from each other by a thick stratum of stalagmite—in which case we can have no doubt that the facts prove a hiatus, often representing a period of time which can only be estimated by great physical changes in the environments, and the extinction of some of the local fauna. Were it proved that the palæolithic remains in question belonged to the last individuals of the doomed race, I would join issue with the advocates of the hiatus theory. But, suppose that we found the two culture-beds without an intervening stalagmitic layer at all, and that we had satisfactory proof that the owners of the respective relics had been almost contemporary with each other—that, in short, the one race had supplanted the other—how would such a condition of things affect the hiatus theory? In this case the hiatus would remain precisely as before, or very nearly so, only the element of time would be reduced to the vanishing point. The difference in technique disclosed by these respective remains constitutes, in some cases, the only impassable gulf which has not hitherto been bridged over by discoveries in any part of the world. Indeed it is the absence of a transition period between the two civilisations which forms the strongest argument in favour of the theory that Neolithic man is an immigrant into Western Europe.

I am not aware of any evidence which actually forbids the idea that the Quaternary men of Europe survived till the arrival of these neolithic immigrants; but whether

the former were exterminated, or became absorbed with the latter, would make little difference on subsequent events, as the lower civilisation was bound to give way to the higher. The nomad hunter would soon sink into the herdsman, and his roughly-chipped axe would be superseded by one with a finely-ground edge. The gradual disappearance of the large mammalia—the game with which Palæolithic man had been so long familiar—would necessitate a corresponding change in his manner of living; and it is quite probable that, without domestic animals and without a knowledge of agriculture, his race would rapidly dwindle in point of numbers, and even become extinct in some localities. Should a few caves and rock-shelters be still inhabited by these ancient hunters when the Aryan shepherds came on the scene, the union of the two peoples, to such an extent as to leave discoverable traces of an amalgamated community, would be extremely rare. Yet a near approach to such a point of contact has been observed in more than one district in France, as, for example, the *Grotte de Reilhac* (Lot), the cavern of *Mas-d'Azil*, and others. The former has been investigated and described by two of the most competent authorities in France—viz., MM. Cartailhac and Boule. In concluding their report of this discovery they make the following contribution to the subject of our present inquiry:—

Ici, le hiatus signalé tant de fois entre le paléolithique et le néolithique, et dont l'un de nous s'est fait si souvent le défenseur, nous paraît être réduit à un minimum. Ce hiatus est peut-

être représenté par les temps d'occupation de la caverne par les hordes de Lapins qui ont succédé à l'Homme des Renne. La stratigraphie et la paléontologie nous semblent d'accord pour démontrer que les dépôts de Reilhac représentent les temps les plus récents de l'époque paléolithique.¹

The grotto of Mas-d'Azil was examined by M. Ed. Piette, and the result discussed at the 10th session of the International Congress of Anthropology and Prehistoric Archæology in 1889 (p. 203), and from the facts disclosed, there was a consensus of opinion that there could be only a very short transition period between the two civilisations here exhibited. The Abbé Hamard, in a chapter entitled "Pas d'hiatus entre les deux âges" of his '*Études Critiques d'Archéologie préhistorique*,' &c., instances a number of localities throughout France, and elsewhere, in which a commingling of relics of the two civilisations has been observed.

The examination of sepulchral caverns and dolmens in Southern France has revealed the fact that two very distinct races here lived contemporary with each other, one extremely long-headed and the other extremely short-headed. Typical examples of these early races have been found in the famous sepulchral cavern de l'Homme Mort (Lozère),² and in dolmens at Baume-Chaudes (Lozère),³ Tertre-Guerin (Seine-et-Marne),⁴ &c. Hence it has been suggested that the dolichocephalic race may have been a survival of Palæolithic man.

¹ La Grotte de Reilhac, p. 27.

² Revue d'Anthropologie, 1873.

³ Bull. de la Soc. d'Anthropologie, 1876, p. 206.

⁴ Matériaux pour l'Histoire de l'Homme, 1877, vol. xii. p. 317.

The colonisation of Europe by Neolithic man may be aptly compared to the discovery of America by Europeans, or the conquest of the Swiss lake-dwellers by the Helvetians. The explanatory key to all such overlappings of the strongly contrasted products of different cultures, is that the evolutionary stages which connect them had been effected outside the area in which they happen to be associated. The locality which contains evidence of the connection between the palæolithic and neolithic civilisations remains yet to be discovered. During the final stages of the former, the Reindeer caves of the Dordogne and other parts of France and Switzerland were inhabited by a race of hunters, who have bequeathed to us a collection of drawings which form the most remarkable art-gallery in the world. It contains some 300 specimens of carvings in ivory, illustrating with singular fidelity, as well as artistic skill, the social life of the period ; more especially the animals and scenes with which these hunters were familiar. Among the animals portrayed are man, mammoth, reindeer, auroch, horse, bull, wild goat, saiga, bear, salmon, &c. Between the art of the reindeer-hunters, as thus depicted, and the geometrical scratchings of the Aryan shepherd-farmers there is indeed an unbridged gulf. In the struggle for existence, this high-class sporting art had no chance as a *modus vivendi* against the more prosaic civilisation which carried with it the art of supplying humanity with "bread and butter," the characteristic products of husbandry in all subsequent ages.

Summary of Prehistoric Remains.

Up to the present time there is no evidence to show that any of the caves or rock-shelters within the confines of Bosnia and Herzegovina were the haunts of Palæolithic man. But negative evidence counts for little in a country where the torch of research has but recently been kindled. M. de Mortillet, considering that the existence of Quaternary man on the opposite coast of the Adriatic and in the middle reaches of the Danubian valley has already been established, believes the discovery of his remains in the Balkan peninsula to be a mere matter of time. "La constatation en Bosnie me paraît n'être qu'une affaire de circonstance et de temps."¹ But as the question does not at present directly come on the field of discussion, we may dismiss it by observing that the skull of the cave-bear (*Ursus Spelæus*), a contemporary of Quaternary man, has been found in the Megarahöhle of Bjelasnica, near the Ivan station on the Sarajevo-Mostar railway.²

I now proceed to give a *résumé* of the actual discoveries bearing on the ethnology of the country up to the Roman period.

A. The Neolithic Remains at Butmir.

This station has already been sufficiently described at pp. 58-61, and 89-127.

¹ Revue Mensuelle, 1894, p. 379.

² W. Mitt. aus Bosnien und der Herz., Band i. p. 33.

B. Sobunar, Zlatište, and Debelobrdo.

The situation of these localities has also been fully described (p. 63), and it now only remains to say a few words on the character of the relics found on the sites of the huts of Sobunar. Fig. 14 represents a view of their relative positions as seen from Sarajevo. The small cross in the centre of the drawing shows the position of Sobunar; the site of the *Wallburg* of Debelobrdo is on the summit of the elevation to the right; and the heights in the middle and farthest back part of the picture represent Zlatište—the upper cross indicating the position of the line of circumvallation, and the lower the spot where Dr Truhelka discovered some further indications of ancient habitations. The valley to the left separates these outlying heights from the mass of Trebević.

Of the Sobunar huts little remained except their sites; and these were covered with *débris* varying in thickness from a slight covering of mould and grass to upwards of a *mètre* of fallen rubbish—the maximum depth being found over those situated close to the precipitous cliffs. Mr Fiala relates how in one place he was guided to one of the richest finds by observing on the face of a perpendicular rock a darkly stained band, as if made by the smoke of a chimney. Here, about a foot from the surface, in a layer of ashes 9 or 10 inches thick, he found glazed pottery, a silver ring, a Hungarian coin of the sixteenth century, and other medieval relics. Beneath this there was a second layer of fallen *débris* of about the same thickness as the former, and

under it was a relic-bed, one *mètre* thick, containing various prehistoric remains. In another place, about 3 feet below the surface, the workmen exposed the ruins of a potter's workshop containing, among other things, fifteen perforated clay weights for weaving. In all about thirty sites were uncovered, and on some of them were found portions of the burnt clay castings of the timbers which formed the walls of the huts—thus indicating that the dwellings had been destroyed by fire. In some of these clay masses the charred wood still remained.

As might be expected, the relics are of a mixed character, and represent various periods from the Stone Age downwards. Among the former the following may be mentioned: Several worked flakes, spear-points, arrow-points, and nuclei, made of such varied materials as chert, flint, chalcedony, clay-slate, and obsidian. Of polished stone implements there are only an axe and two perforated axe-hammers (fragments). The arrow-heads include one or two specimens of a type which is not represented in the collection from Butmir. These are triangular in shape, with a deep recess at the base instead of a stem. There are also several implements and tools of bone and horn, such as pointers, needles, pins, a broken comb, and fragments of other bone objects, ornamented in some instances with concentric circles.

Bronze appears in the form of a fibula with pendants, needles, ornamented pins, pincers, a spiral finger-ring, one or two small socketed spear-heads, buttons, spirals,

&c. (Fig. 120). Prehistoric objects of iron are less common, but in this category at least one fibula falls to be reckoned.

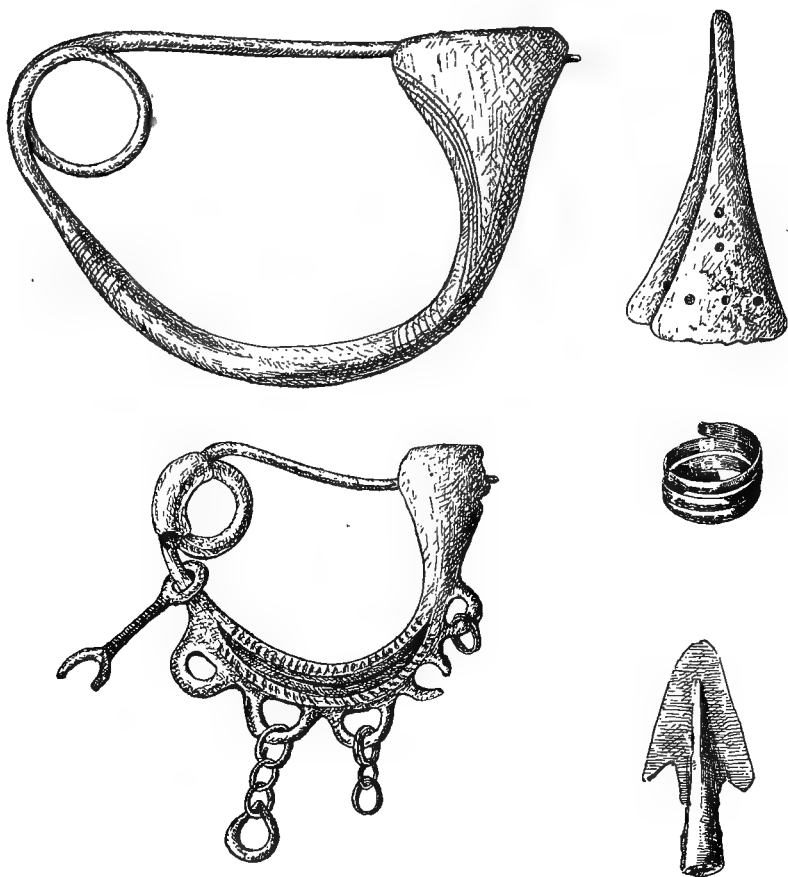


Fig. 120.—BRONZE OBJECTS FROM SOBUNAR (2).

Fragments of pottery are very abundant, and show that they belonged to a variety of well-formed vessels; some of the handles being particularly noteworthy,

inasmuch as they resemble the *ansa lunata*, so well known in the *terramara* deposits of Italy. A number of spindle-whorls, loom-weights, mealing-stones, &c., testify to the pursuit of industries by the inhabitants.

All the ordinary domestic animals and a goodly number of wild ones are represented by more or less of their osseous remains. Among the latter are the roe, red-deer (now extinct in Bosnia for upwards of twenty years), wild boar, brown bear, wolf, &c. Of special interest is a portion of the under jaw of a beaver (*Castor fiber*). Mr Fiala remarks on the frequency with which the word *Daber* (beaver) is found in place-names.¹

To disentangle the overlappings of the several civilisations here indicated would be a difficult and somewhat hazardous task. Equally confused are the few remains found on the adjacent hill-forts, which among other things include Roman remains, and hence no reliable deductions can be based on the results of their investigation.

C. *Bronze Hoard at Šumetac.*

A bronze-founder's hoard, discovered in 1889 in a cultivated field at Šumetac, in the district Cazin, is described by Dr Truhelka.² It consists of a number of objects typical of those of the Bronze Age in Hungary

¹ In the lake-dwellings at Laibach the remains of the beaver were represented by portions of the bones of at least 140 individuals.—*Lake-Dwellings of Europe*, p. 185. See also discussion on otter and beaver traps in 'Proceedings of Society of Antiquaries of Scotland,' 1890-91, pp. 73-89.

² W. M., vol. i. p. 35.

—viz., twenty-four sickles (ten complete); five socketed celts (two complete); three palstaves (two complete); fragments of a lance-head, a dagger, and a hammer-axe; one socketed chisel; two portions of wire which probably bound the hoard together; and fifteen lumps of bronze castings (Fig. 121).

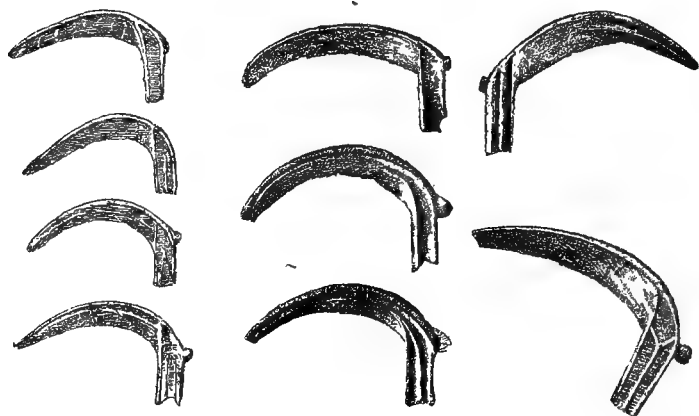


Fig. 121.—BRONZE SICKLES (PORTION OF A HOARD).

D. *Skeleton Graves at Sreteš and Čatići.*

Mr Radimsky describes the discovery of some bronze relics in graves at Sreteš and Čatići, in the district of Visoko. These localities lie a few miles to the east of the railway station of Kakanj-Doboj, and about an hour's walk from each other. The interments were without tumuli, or other surface-markings, to distinguish them. The principal relics consist of an ear-ring with a double spiral pendant, a couple of bow-shaped fibulæ, two spiral arm-bands with many windings, and a few

buttons, spiral tubings, and fragments of pottery with finger-nail markings. These objects were at first supposed to indicate a pure Bronze Age, but, as pointed out by Dr Moriz Hoernes,¹ analogous objects have been found in the early Iron Age cemeteries of Glasinac.²

E. *The Cemeteries and Hill Forts of Glasinac.*

For a description of these remains see chap. v.

F. *The Hochebene Rakitno and its Antiquities.*

The plateau so named lies in the north corner of the district Ljubuski, at an elevation of some 800 or 900 yards, where, even in summer, the climate is comparatively cool and agreeable. According to evidence still existing the advantages of this locality did not escape the Romans, who have left behind them numerous remains, especially two fortresses which dominated the district and guarded its passes. The ruins of the largest, called *Römerburg von Petrovići*, occupy the top of a conspicuous height, some 200 feet above the surrounding ground. Various Roman antiquities have from time to time been found on and around it, such as coins, pottery, swords and spears of iron, and a fragment of thin bronze plate ornamented with a running scroll, and bordered on each side with a row of small circles.

The ruins of the second fortress, *Gradina von Zagradina*, are situated 6 kilom. to the south-east of the former, on an equally prominent and commanding

¹ W. M., vol. i. p. 343.

² Ibid., p. 55.

situation, and its neighbourhood has also yielded a similar variety of Roman remains.

As a result of a visit to this locality and inquiries of the inhabitants, Mr Radimsky has brought to light the existence of several groups of interments with well-marked relics, notably a collection of La Tène objects from graves situated a little to the south of the fortress of Zagrädina. Other graves contained characteristic objects of the Hallstatt period; so that in this locality the two great pre-Roman civilisations would appear to have come into contact. Objects of La Tène types have also been discovered in the vicinity of the fortress of Petrovići.¹

G. La Tène Objects at Majdan.

A few miles to the north of Jezero, and a little to the west of the road to Varcar Vakuf, at the village of Majdan, Mr Radimsky has procured some evidence to show that both La Tène and Roman civilisations once flourished here. In the vicinity of the ruins of mortar-built walls (Roman) he gathered fragments of pottery, iron slag, and masses of burnt clay smoothed on one surface. He also ascertained that some twenty years previously many bronze articles were discovered in the locality, but being considered of no value they became playthings to the children, and so were irretrievably lost. Recently, however, in 1891, a fibula of early La Tène type was found, which is now figured in Mr Radimsky's article. Copper and iron mines abound in this neigh-

¹ W. M., vol. i. p. 169-179.

bourhood, and the hypothesis is that they were worked before as well as during Roman times. It is also on record that the old Bosniacs, during the middle ages, carried on mining operations in the locality—operations which have been again recently started and are now going on.¹

Subsequently it was ascertained that in this neighbourhood there were several places in which fragments of tiles, pottery, and iron slag were to be found scattered on the surface of the fields. On making excavations on one of these localities the ruins of a Roman villa were exposed. The building was a rectangle, 18^m. by 16^m., having a small apse projecting from one end. The internal area was divided into a central hall and five small apartments symmetrically arranged, one at the end and two on each side. The relics consisted of broken columns, sculptured capitals, fragments of an inscribed monument with figures in bas-relief, portions of stucco-plaster with coloured designs in linear patterns—one being the common meander, an iron plough-share, a silver stilus, &c. The distance between this settlement and Šipovo is 18 *kilomètres*, and comparing this with statements in the *Tabula Peutingeriana*, Radimsky identifies it with the Roman station “Baloie.”²

H. *The Necropolis of Jezerine.*

Described in chapter v. pp. 160-172.

¹ W. M., vol. i. pp. 180-183.

² Ibid., vol. iii. pp. 248-256.

J. The Vrankamer Hoard of Coins.

In the year 1887 a shepherd discovered an earthen pot in the cleft of a rock, at a place called Vrankamer, near Krupa, which contained a remarkable hoard of coins, together with some bronze castings, apparently part of a bronze-founder's stock-in-trade. The larger portion of this hoard was sent to the Museum at Sarajevo, where it was examined, and found to consist of ninety-eight coins of African origin, the oldest dating back to 300 B.C. and the most recent to 118 B.C.; also 28 *kilogrammes* of irregularly shaped pieces of bronze, some of which retained the form of the vessel in which the molten bronze was allowed to cool. The earthen pot in which this treasure had remained concealed, probably for more than 2000 years, was hand-made, badly burnt, and when touched at once crumbled into minute fragments.¹

K. Miscellaneous Finds.

In addition to the above list of discoveries throughout Bosnia and Herzegovina there fall to be mentioned a few sporadic specimens of prehistoric objects which, being surface or isolated finds, carry little evidence beyond what may be inferred from their composition and technique.

1. A bronze axe of unusual form found in surface earth at Debelobrdo. Objects belonging to various ages were discovered in the vicinity

¹ W. M., vol. i. pp. 184-188.

of this hill - fort, including Roman remains. (See p. 63).

2. A double axe of copper, like those of Hungary, and a flat copper celt, both found while the road between Doboï and Banjaluka was being made.
3. A perforated stone axe-hammer (Fig. 122), a bronze lance-head (Fig. 123), and one valve of a stone mould for a socketed celt of bronze.

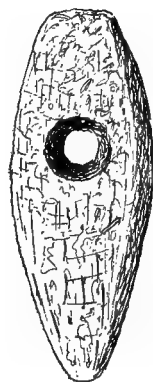


Fig. 122.—PERFORATED
STONE HAMMER ($\frac{3}{8}$).

These latter relics were discovered on the picturesque hillock of Crkvenica near Doboï associated with Roman buildings—a fact which suggests that the site, like so many localities in Bosnia, had been occupied as a fortress in pre-Roman times.¹

4. Mr Hörmann describes a double-edged sword-blade dredged from the bed of the river Drina having a flat tang perforated for the rivets which fixed on it a wooden handle.²



Fig. 123.—BRONZE
SPEAR-HEAD ($\frac{1}{2}$).

5. A number of bronze objects usually ascribed to the Bronze Age have been found in the mixed stations of Sobunar-Debelobrdö. Also, in the Museum of Sarajevo may be seen a few

¹ W. M., vol. i. p. 262.

² Ibid., p. 317.

arrow-heads and about a dozen socketed celts found at various places throughout the country. They are all of the same types as the Hungarian examples of these implements.

• *Story of the unwritten Records.*

In presenting to my readers as much of the details of the archæological materials recently discovered throughout the provinces of Bosnia and Herzegovina as was possible without unduly encroaching on the limits and popular character of this work, I have not adhered to any system of classification. Our next point will therefore be to indicate the natural and chronological sequence of the events which these materials represent.

All past phenomena have been stereotyped in the book of Time, whether they have left in the material world any discernible trail or not. Hence, chronologically and relatively, every single event bears to every other event an unalterable position, the determination of which is one of the main objects of archæological science. But the problem is a difficult one, and in many cases absolutely insoluble by human ingenuity. As the materials of archæology lie, for the most part, outside the scope of written records, the ordinary methods of historical research are inapplicable, and consequently others have to be resorted to. In the present advanced state of the science of prehistoric archæology it is hardly necessary to explain what these methods are. When an architect, well

versed in the developmental stages of his art, comes upon a ruined church or some other building of note, he can generally tell after a slight inspection to what period and style it belongs. He forms his opinion on some of the characteristic details of the ruins—a piece of sculpturing, the shape of a window or moulding, or some other apparently insignificant feature. Art, like fashion, is a reflection of its ever-changing environments, and hence the products of every age have special peculiarities by which, within certain areas, they can be recognised. The art products of the old-world civilisations of Assyria and Egypt were as highly differentiated from each other as those of China and England are at the present time. The consecutive phases of this evolution in human civilisation have occasionally left traces behind them, in the form of relics, which may be compared to instantaneous photos of phenomena which can never be repeated. The recurrence of a combination of circumstances, which would evolve a style of art that could be mistaken for that of ancient Egypt, would be as improbable as the reappearance of the extinct Dodo among the world's fauna of the future. An animal, a plant, or a civilisation, it matters not which, once extinct, never again appears on the stage of current organic life. It is this great law of evolution which enables the archæologist to prosecute his studies with confidence. He gathers the waifs and strays of past humanity from the dust-bin of ages and, by a comparison of their resemblances and differences, determines approximately their distribution in

space and time. Although these old things have no labels affixed to them they present special characteristics—certain marks or symbols, unconsciously impressed on them by their original owners or manufacturers—which become legible in the hands of the initiated. So much is this the case that Scandinavian experts would have no difficulty in picking out from a mixed assortment of stone implements every one that was of Scandinavian origin. But the principles by which this brilliant result can be accomplished are the same as those practised by a dealer in old furniture when he excludes from his collection this or that article as a forgery.

In accordance with these principles I think that the inhabitants of the neolithic station of Butmir represent the earliest settled people of Bosnia. Their handicraft products show that on their first appearance in the locality they had already attained to a comparatively advanced state of civilisation and culture. Their pottery, stone implements, and other industrial objects, disclose not only efficiency of purpose, but some taste, if not beauty, of design. They lived in houses, manufactured garments of woven cloth, bartered domestic commodities, and conducted their social affairs on the principle of the division of labour. As a means of livelihood, the produce of the chase had already occupied a secondary place to that derived from the rearing of domestic animals and the cultivation of cereals. They were religionists, and put their religious ideas into practice by worshipping rudely made images or idols.

Owing to the exceptional causes, already explained, which destroyed almost every trace of relics made of perishable materials, the reconstructed picture of the social condition of the Butmirians is to this extent less copiously illustrated than those of analogous stations with which comparisons might be invited. But, notwithstanding this defect, there still exists a sufficient amount of evidence to prove that between the Butmirians and the more ancient lake-dwellers there was a striking similarity as regards culture, civilisation, polity, and mode of living. As examples for comparison I would direct special attention to the adjacent stations of Laibach in Styria, and Polada in North Italy; and for this purpose I have here reproduced Plates XV. and XVI. from the 'Lake-Dwellings of Europe.' From these it will be seen that among the large assortment of objects found at Laibach there are clay images of man and beast, precisely analogous to those from Butmir. But in addition to these figurines (Nos. 5 to 8, Plate XVI.), other two from the same locality are represented on Fig. 42 (Nos. 11 and 23) of the above-named work. Nor are such objects, be they idols or playthings, by any means exceptional relics among the neolithic *Pfahlbauten* throughout Central Europe.

But if the Butmirians, when they founded their settlement, were so well equipped for the duties of communal life, one naturally asks, Where did they acquire their preparatory training? Such a stage in the progress of human civilisation is a long way in

advance of the life of the Palæolithic hunter; nor is there any evidence to show that the intermediate stages took place on Bosnian soil. Consequently we must look elsewhere for the mother-home of the neolithic civilisation of the Butmirians. So far as I am concerned it is unnecessary to formulate any new theory on the subject. In attempting to answer a similar question in regard to the early lake-dwellers of Europe I thus expressed myself:—

In hazarding an opinion as to the original founders of the lake-dwellings in Central Europe I would say that they were part of the first neolithic immigrants who entered the country by the regions surrounding the Black Sea and the shore of the Mediterranean, and spread westwards along the Danube and its tributaries till they reached the great central lakes. Here they founded that remarkable system of lake-villages whose ruins and relics are now being disinterred as it were from another or forgotten world. Those following the Drave and the Save entered Styria, where they established their settlements on what was then a great lake at Laibach. From this they crossed the mountains to the Po valley, where they founded not only the pile-villages, but subsequently the *terremare*. The Danubian wanderers having reached the upper sources of the Danube, crossed the uplands by way of Schussenried, and arrived on the shores of Lake Constance, from which they quickly spread over the low-lying districts of Switzerland. From Lake Neuchâtel, still continuing a westward course, they reached the Rhone valley by way of Morges, where they erected one of their earliest and largest settlements. From the Lake of Geneva they had easy access to the lakes of Annecy and Bourget.¹

When these words were written the existence of the settlement at Butmir was unknown and unsuspected.

¹ Lake-Dwellings of Europe, p. 552.

Now that it looms so conspicuously on the prehistoric horizon, it must be accounted for in any theory that professes to deal with the present ethnological conditions of Europe; and, indeed, it affords a splendid opportunity of testing the value of the above hypothesis as to the origin of the lake-dwellers. In my opinion this hypothesis, to which at first I somewhat timidly committed myself, finds a startling corroboration in the discoveries at Butmir. From this standpoint the station is one of the side-eddies of the early stream of immigrants who found their way into Europe by the Danubian valley from the regions to the south and east of the Black Sea. These pioneers of a new culture kept mostly to the south side of the river, and from the main highway now and again a colony diverged, by way of its affluent streams, to the higher lands which experience taught them to be most suitable for the avocation of shepherd-farmers. The goal of their wanderings was the rich and well-watered pastures along the lakes, brooks, and springs into which the great water highways finally break up. It has now, for the first time, come to the knowledge of archæologists that the upper reaches of the Bosna and the Una afforded congenial abodes to these primitive colonists. I have already noted the fact that at Ripač, in the valley of the Una, the remains of a true pile-structure have been discovered and partially investigated. As the site has been occupied both in pre- and proto-historic times, the relics are accordingly of a mixed character, and consequently afford no reliable data for archæo-

logical deductions. Mr Radimsky informed me that he had observed indications of analogous stations at one or two other points in this neighbourhood. If so, we may reasonably expect that further researches will yield evidence of a civilisation similar to that of Butmir.

How long the village of Butmir continued to be inhabited it is difficult to conjecture from the data now before us. If the opinion which I have advocated in regard to its structure be well founded on fact, a century or so of continued occupancy would suffice to account for the accumulation of *débris* amassed on its site, as the empty space underneath the huts would soon become filled up with rubbish. In any further investigations that may be undertaken special attention ought to be given to the ruins of burned huts observed by Mr Radimsky, near the surface of the mound, as it may turn out that the entire settlement came to a sudden end by a conflagration. Although, hitherto, no trace of metal of any kind has been found among the relics, there are grounds for believing that the settlement flourished during the period when the art of substituting bronze for stone in the manufacture of cutting implements was spreading over Europe. As previously mentioned, Professor Virchow was not convinced from anything he had seen that, eventually, metal objects would not be found at Butmir. Such a discovery would be in perfect harmony with the insidious manner in which bronze was introduced throughout the lake-dwellings. Nowhere does the appearance of the earlier

objects made of this metal suggest violence towards pre-existing social conditions. They seem to have been imported into the different localities by merchants, or peripatetic bronze-founders, whose motives were merely commercial gain. It, therefore, seems to me that a knowledge of this metal came first into Europe by the same route which gave access to the people who founded the pile-structures. Bosnia, being out of the way of the direct commercial stream to the West, it was later than the shores of the Baltic in coming under the influence of the new civilisation. Hence, while a considerable traffic in bronze objects was carried on along the Danubian route, it still remained to a large extent under the sway of the old neolithic *régime*—thus accounting for the fact that that part of the Balkan peninsula has not passed through a Bronze Age in the ordinary sense of the term. The few objects typical of this age, which have been discovered on the soil of Bosnia-Herzegovina, are mere stragglers imported from the Hungarian archæological district.

While this commercial intercourse between Asia Minor and the Baltic was kept up for many centuries along the old land-routes, there suddenly appeared in the regions around the head of the Adriatic a new civilisation, known in modern times under the name of Hallstatt, which seems to have had a great influence on the subsequent history of Europe. Its remains extended over a large area, comprising North Italy, the Tyrol, Upper Austria, Styria, Carinthia, Carniola, Istria, Croatia, and Bosnia. The principal cemeteries which

have yielded characteristic remains of this civilisation are at Este, Santa Lucia, Hallstatt, Frög (Carinthia), Watsch and St Michael (Carniola), Maria Rast, Vermo (Istria), Prozor, &c.; but, commercially, its products spread sporadically throughout a much wider area.

The period which marks the transition between the Stone and early Bronze Ages is characterised by the development of a remarkable social custom—viz., that of cremating the dead, which probably had its origin in some religious doctrine among the more cultured people on the eastern shores of the Mediterranean. This custom spread with the rapidity of an epidemic, and appears, most unaccountably, to have developed all at once in the most distant parts of Europe. The idea of disposing of the dead at all, seems to have emanated from the religiosity of mankind; and it discloses itself first as a concomitant of the neolithic civilisation—for there is no evidence to show that Palæolithic man was a religious being or buried his dead. The earliest and most common method was simple inhumation—a method which has never been entirely superseded. Of the manner in which the Butmirians disposed of their dead we have no knowledge, and in associating them with the lake-dwellers of Central Europe, this fact is of some significance, because till 1876 a similar mystery hung over the funereal customs of the latter. Nor can it be said to have been yet entirely removed. A few cemeteries and isolated graves, said to be those of lake-dwellers, have been described at Auvernier, Montreux, Morges, St Prex, and Chamblades, which

suggest that inhumation was the method then in vogue.¹ As an explanation of the absence, or extreme rarity, of cemeteries among the lake-dwellers, M. Bertrand broaches the idea that they might have practised burial rites similar to those of the Colchians, who, we learn from the story of the Argonauts, had a perfect horror of both inhumation and cremation.² Their custom was to wrap the body in a cow-hide, and then to suspend it on a tree in a lonely place far from the town. Whether or not this suggestion is applicable to the settlement of Butmir I know not, but it is a curious fact that not a single grave has yet come to light which can be assigned to its inhabitants. Another collateral point of some importance is that the *Terramaricoli* of Italy practised cremation of the dead, a fact which has been recently conclusively demonstrated by Professor Pigo-rini's explorations at Castellazzo di Fontanellato.³

The contrast between the archæological remains of Butmir and those of the early Iron Age, as disclosed by the investigation of the tumuli at Glasinac, is very striking. The latter indicate the incoming of a new people who came on the scene, probably as conquerors, bringing with them the elements of the higher culture. Already possessed of the requisite metallurgical skill to manufacture objects of bronze and iron, these newcomers easily subjugated the previous inhabitants and settled permanently in the country, becoming subse-

¹ Lake-Dwellings of Europe, pp. 539-542.

² La Gaule avant les Gaulois, p. 162.

³ Antiquary, vol. xxviii. p. 193.

quently the Illyrians of the classic authors. Here they continued as pastoral and agricultural farmers, with little disturbance from outside influences, till they came under the dominion of the Romans. As we have already seen, their culture and civilisation were the same as those of the people of Hallstatt, and as the lands of Bosnia and Herzegovina constitute the eastern fringe of the archæological area which takes its name from Hallstatt, it is at least a feasible hypothesis to suppose that the Illyrians entered the country from the west, and not, as their Neolithic predecessors, from the east *viâ* the Danube.

Whatever view may be adopted as to the primary source of this remarkable civilisation, we are bound to recognise in it a foreign element of some kind; but how this element entered the country is a problem in regard to which opinions differ widely. The sudden appearance of such highly developed products of the early Iron Age in the regions around the head of the Adriatic, so soon after iron came into general use in Greece and Asia Minor, suggests the idea that they were originally introduced by a sea-route through a colony of Greek adventurers who settled in the land, and for some time kept up a connection with the home country. That they did not come by the old Danube route may be inferred from the fact that the Hallstatt period was partly contemporary, and flourished side by side, with the Bronze Age in Hungary.

CHAPTER X.

BOSNIA AND HERZEGOVINA IN HISTORIC TIMES.

IN the foregoing sketches we have seen that, while the grave-goods in general found in the tumuli of Glasinac indicate a permanently residential population under an early Iron Age civilisation similar to that of Hallstatt, a small percentage of the objects discloses a foreign *provenance* which, in some instances, has been traced to one or other of the culture-centres on the shores of the Mediterranean. On the other hand, the investigation of the cemetery of Jezerine, and a few sporadic discoveries on the borders of Dalmatia and Croatia, prove that the north-west corner of Illyricum had been inhabited by a people who lived under the civilisation known as La Tène. Moreover, it would appear that the owners of both these sepulchral remains continued to flourish as separate communities until they came in contact with the Romans, when their special characteristics, like those of many other nationalities, disappeared in the melting-pot of Roman civilisation. In endeavouring to interpret the ethnological value of these data, let me

remind my readers that this so-called La Tène culture is a mere offshoot from that of Hallstatt, which underwent its developmental career in more western lands than its mother-home. Although, therefore, its products generally belong to a later date, it does not hence follow that all relics of Hallstatt types are older than those of La Tène, because, while this new phase was being developed in one special locality, the people of other localities, being less affected by outside influences, still retained their primitive customs. Applying this doctrine to the cemeteries of Jezerine and Glasinac, their contemporary remains may be said to represent the beginning and end of the early Iron Age in Europe. The striking contrast between their respective relics merely marks the effect of the modifying influences to which they had been subjected during a period of exceptional activity among the contending nationalities of Europe. The novel elements introduced among these nationalities through the Hallstatt civilisation rapidly led to a progressive evolution, not only in the implements of warfare, but in arts and manufactures. The comparative isolation of the Illyrians enabled them to continue for a longer period with little or no change in the primary elements of their early culture.

But notwithstanding the significance of these archaeological landmarks, they are insufficient as a basis from which to draw large and sweeping conclusions. We must first ascertain to what extent the Balkan peninsula is overspread with tumuli possessing the same character-

istics as those of Glasinac. Do they extend eastwards and southwards over ancient Thrace and Macedonia? If so, a land-route for the extension of the early Iron culture from the shores of the Ægean Sea might be established. Nor would such a result be inconsistent with the introduction of the Hallstatt culture into Europe *viâ* the Adriatic. In this case the two waves of the same civilisation must have emanated from one and the same source, and met in the central regions of Illyricum, the one moving north-west from the Ægean Sea, and the other south-east from the head of the Adriatic. The latter was followed and overtaken by a second wave (La Tène) coming from the west, which merely washed the western borders of Illyricum.

Such are the main ethnical facts, as disclosed by archæology, which obtained in the north-west corner of the Balkan peninsula at the dawn of the historic period; and they acquire greater significance by the fact that they harmonise with the statements of classical authors. Singularly enough, Herodotus scarcely notices the Illyrians. He incidentally mentions the Veneti, an Illyrian race, as having a custom similar to the Babylonians of collecting once a-year their marriageable maidens and selling them by auction. The handsomest fell to the highest bidders, and the sums thus realised were given as dowries to the plainer maidens, who went to those who offered to take them with the least amount of money.¹ Strabo, however, gives more definite information. He describes the Japodes as a mixed Keltic

¹ Book i. 196.

and Illyrian tribe inhabiting Mount Albius, "which," he adds, "is the termination of the Alps, and is of very great height. They reach in one direction to the Panonii and the Danube, and in another to the Adriatic. They are a warlike people, but were completely subdued by Augustus. Their cities are Metulum, Arupinum, Monetium, Vendum. The country is poor, and the inhabitants live chiefly upon spelt and millet. Their armour is after the Keltic fashion. Their bodies are punctured like those of the other Illyrian and Thracian people."¹

The locality thus assigned to the Japodes clearly includes the site of the La Tène cemetery of Jezerine. Now I hold strongly, as already stated here and elsewhere,² that the relics characterised as "Late Celtic" in Britain belong to the same civilisation as those which go under the name of "La Tène" in Central Europe. According to this hypothesis, the cemetery of Jezerine belonged to those Celts described by Strabo as forming part of the mixed tribe of the Japodes. We learn from historical documents that the first appearance of the Gauls in this part of Europe was in the time of Tarquinius Priscus, some 600 B.C., when they overran Dalmatia. In the fourth century B.C. they are represented as permanently settled among the Illyrians—a date which tallies to a nicety with that assigned by Radimsky to the earlier interments at Jezerine.

The Illyrians are described as tattooing their bodies

¹ Book vii. c. v. §§ 2 and 4.

² Lake-Dwellings of Europe, p. 551.

and offering human sacrifices. They had a warlike disposition, and kept up an incessant attack on the early kings of Macedonia. But they were completely subdued by Philip II. and Alexander the Great. After the death of the latter they regained their liberty, and became addicted to piracy, which, on account of the depredations committed by them on Roman trade, brought against them the arms of the Republic. This was the origin of the first Illyrian war (229 B.C.), in which the Illyrians were defeated, and their queen, Teuta, was forced to pay an annual tribute to the conquerors. Subsequently (170 B.C.) we find the Celts and Illyrians entering upon an alliance against the Romans, who had already taken possession of the lands south of the Narenta. The Romans attacked the combined forces of the allies to the north of this river, and by the capture of their chief stronghold, Delminium (supposed to be at a place now called Duvno), the present provinces of Bosnia and Herzegovina became part of the Roman dominions. In 35 B.C. the whole of Illyricum was made into a Roman province.

During the continuance of the Roman Empire the Illyrians served in its armies, and even gave some half-a-dozen emperors to the State, among whom were Claudius II., Aurelian, Diocletian, and Maximian. Upon its downfall, Illyricum was repeatedly overrun by Goths, Huns, and Slavs, in consequence of which many of the Romanised Illyrians fled southwards, where they are said to be still represented in the modern Albanians. But to give an outline of the successive

races who flourished in this part of the Balkan peninsula subsequent to Roman times is the province of the historian. Suffice it to say here that when the period of great migrations (*Völkerwanderung*) and temporary ravages which characterised proto-historic times in Europe came to an end, and its modern nationalities assumed some degree of permanency, we find the Croats occupying Croatia and the northern part of Dalmatia. The lands immediately to the east of these provinces — Bosnia, Serbia, Herzegovina, Montenegro, and the northern portion of Albania—were in possession of the Serbs. Thus the people with whom we are more immediately concerned belong to the Serbian branch of the Slavs, and their language goes under the name of Serbo-Croatian.

Roman Times.

No old-world civilisation has had such a wide distribution and influence as that of the Romans. The dominions of the *Imperium Romanum* encompassed the entire Mediterranean, and sometimes stretched far into the interior. Roman legions crossed the Rhine and the Danube, and their standards waved over the larger portion of Europe. Not only so, but wherever they went they left imperishable traces behind them. The products of their arts, industries, and general civilisation, even should the principles on which they were executed have been borrowed, bear, as it were, a sign-manual which to this day differentiates them from

the works of all other peoples. The special *technique* which thus characterises their remains, wherever these may be found, gives to Roman archæology an exceptional importance in the study of European civilisations. Like a stalagmitic layer which, in some cases, links together the palæolithic and the neolithic civilisations, so the Rôman archæological stratum forms the connecting-link, or borderland, between the unwritten and the written records of nearly all Europe — with this difference, however, that the stalagmitic layer lay outside the pale of positive chronology, whilst Roman civilisation could be measured by a few centuries. Hence, with Roman remains, we always know our exact position in the scale of time.

In face of the fact that Roman archæology has been a favourite study among classical scholars for many centuries, a general review of all the existing materials even in a country so comparatively little known as Bosnia - Herzegovina, would be unnecessary. I will, therefore, confine my remarks on this subject to a brief notice of the localities where recent explorations have yielded fresh discoveries. Passing over, then, the works of Mommsen,¹ Blau,² Hoernes,³ Evans,⁴ Wilkinson,⁵ and others, who within recent years have touched more or less on the Roman antiquities of Bosnia and Herze-

¹ Corpus Inscriptionum Latinarum, 1873.

² Reisen in Bosnien und der Herzegovina, 1877.

³ Alterthümer der Herzegovina, 1882 ; and in Sitz. der K. K. Akad. der Wissen., Bd. xcix.

⁴ Antiquarian Researches in Illyricum. Archæologia, vols. xlvi. and xlix.

⁵ Dalmatia and Montenegro. 2 vols. 1848.

govina, I first of all mention the excellent work of Philipp Ballif,¹ in which the author has made considerable additions to the identification of the marvellous network of roads which the Romans had constructed over the length and breadth of the land. He discusses their method of road-making from the actual materials observed, and, for the first time, describes the existence of traces of waggon-wheels (*Spurrillen*) over the Karst mountains. The map which accompanies the work is the most complete of its kind yet published. He gives a tabulated list of forty-nine stations where Roman milestones have been found throughout the provinces. At some of these stations there were more stones than one, as, for example, at the Romanja-Planina, where a group of six or seven was found in a wood *in situ*—one complete and the others broken. Three of them bear inscriptions. The epigraphs on these monuments are described and figured by Dr Carl Patsch in a separate chapter.

The following notes are from the official records of investigations conducted by members of the staff of the National Museum at Sarajevo, and published in 'Wissenschaftliche Mittheilungen aus Bosnien und der Herzegovina':—

A. In the vicinity of Srebrenica, not far from the Drina valley, where it is recorded that silver and lead mining was carried on during the middle ages,² various

¹ Romische Strassen in Bosnia und der Herzegovina. Wien, 1893.

² Along the stream north and south of Srebrenica Mr L. Pogatschnig has detected some dozen localities with remains of old mining operations.

objects of Roman origin have been casually found during recent years, such as a terra-cotta lamp of the usual Roman shape, a copper coin of the time of Constantine II., and fragments of altars and gravestones bearing inscriptions, some of which were built into the walls of the church at Sase. Excavations in the village of Gradina disclosed the ruins of buildings in which several sculptured and inscribed stones were found. One proved to be a monument to *Lucius Domitius Eros, procurator metallorum Pannoniorum et Dalmationum*. Among other objects were various silver and copper coins, a piece of gilt bronze, and a pig of lead 6700 grammes in weight, having its surface stamped with the number xx. These discoveries induced the *Landesregierung* at Sarajevo to look into the matter, and in 1890 Radimsky commenced investigations. The result has been the discovery of the Roman town of DOMAVIA, with its curia, baths, &c., together with a large assortment of industrial remains, such as tiles for heating, roofing, and other purposes; numerous fragments of sculptured and inscribed stones; several portions of a life-size bronze statue including a toe and a finger; the hand and arm of a bronze statuette; different kinds of bronze fibulæ; the head of a statue made of trachyte, and the foot of another of stone resting on a portion of its pedestal; also pottery,

Near the source of the Čičevac he has uncovered the actual *débris* of a rude smelting-furnace represented on Plate XXX., which he assigns to the period between the thirteenth and fourteenth centuries—a period which, according to Professor C. Jireček, was the most flourishing in the history of Bosnia.—W. M., vol. ii. p. 156.

iron implements, &c. Of special interest is a cheese-shaped Roman leaden weight weighing 1024 *grammes*.¹ The number of coins collected amounts to 61—3 of silver, 2 of a mixed metal (*Billon*), and 56 of copper or bronze. They range over the time from Trajan to Constantine II.—*i.e.*, from 98 A.D. to 340 A.D.²

The same archæologist describes and figures two Roman stones with human figures in relief subsequently found in the same place.³ Also Dr Truhelka, in noticing various discoveries made along the Roman road to the Drina valley and its side branch to Domavia, mentions the discovery, in 1891, of a hoard of coins consisting of 866 of bronze and 4 of a mixed metal (*Billon*), and dating from 200 A.D. to 250 A.D.⁴

B. In 1889 there were exposed in a field in the vicinity of Laktaši, between Banjaluka and Gradiška, the foundations of a rectangularly shaped house 21.20^m. long and 17.60^m. broad. The internal structures were symmetrical on both sides, and separated by two partition-walls, enclosing a passage 1.60^m. in width. In this passage were two foundation-walls and a series of three canals running alongside of them, which are supposed to have been used for heating the establishment.⁵

¹ A similar but smaller leaden weight (4 ounces and 229 grains) has been found in the Glastonbury lake village.—Proceedings of the Royal Society, Edinburgh, vol. xx. p. 408.

² W. M., vol. i. pp. 218-253.

³ *Ibid.*, p. 329.

⁴ *Ibid.*, p. 310.

⁵ It may be interesting to note that during the excavation of the Roman camp at Birrens in Scotland, now going on, a very similar system of heating has been observed.

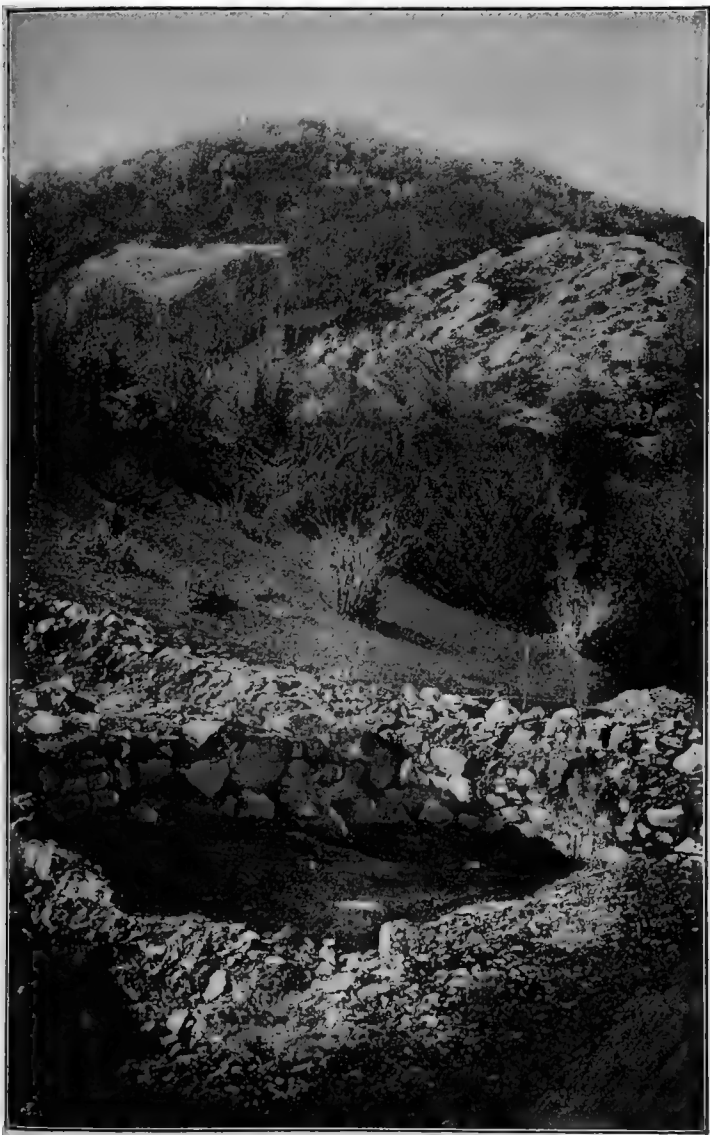


PLATE XXX.

RUINS OF AN ANCIENT SMELTING-FURNACE, BOSNIA.

Among the relics collected in the *debris* were the following: various kinds of tiles, some being rectangular hollow tubes, one fragment having on it the impression of the fore-half of a naked human foot; some nails, a key, and a knife—all of iron; a few fragments of glass; four portions of an ornamental plate made of zinc; and a copper percolator, the perforations being neatly arranged in concentric circles. This discovery is recorded by Mr J. Kellner.¹

C. On the top of the isolated limestone rock called Crkvenica, situated on the left bank of the Bosna, near Doboj, some 40^m. above the level of the river, Mr Radimsky has investigated the ruins of an ancient fortress. The presence of graves and the remains of obscure buildings in this locality gave rise to the tradition that it was the site of an ancient church. In some of the graves, previously opened from time to time, were found a few beautiful ear-rings and finger-rings made of silver and copper wire, the former metal being sometimes gilt, and the latter silvered. Investigations showed that it was a fort, which had been occupied successively in prehistoric, Roman, and medieval times. A massive wall, which followed the irregular contour of the summit, enclosed an area of 11,200 square *mètres*.

The Roman remains consist of fragments of sculptured stones (some bearing inscriptions), pottery, a bronze stilus, and various objects of iron—a key, knives, nails,

¹ W. M., vol. i. pp. 254-261.

and a portion of a sickle and of an axe. The prehistoric remains are noticed at p. 327. Those of medieval times are two large copper pans, together with a tripod, a ladle, and a gridiron, all of iron.

About a *kilomètre* north of this fort there is to be seen, in the plain, the remains of a pure Roman *castrum*.

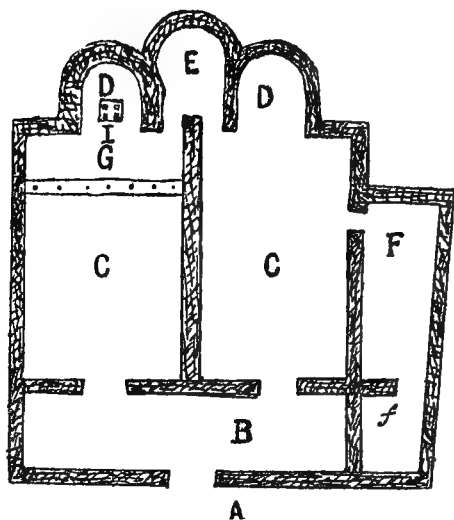


Fig. 124.—PLAN OF A ROMAN BUILDING AT ZENICA.

It is of a rectangular shape, measuring 160^m. in length and 120^m. in breadth, and is surrounded by a stone wall now nearly covered over with soil and bushes.¹

D. Of singular interest is the discovery of the ruins of a Roman house in the

grounds of the State prison at Zenica, which when cleared out revealed the foundations of a double basilica, having a common hall in front and three apses behind, as shown on the plan (Fig. 124). Dr Truhelka, who describes these remains, observes that there can be no doubt, from the peculiarity of its construction and the number of inscriptions found on the site, that this

¹ W. M., vol. i. pp. 262-272.

building dates from Roman times. Its special interest lies in the fact that, subsequent to its erection, the portion marked *C* was converted into a Christian church. An altar, *I*, was placed in the apse, *D*, and rows of columns were introduced into the part marked *G*—the square bases on which they had stood being still extant. It would appear, however, that this arrangement for some reason or other was discontinued, and that then the outer hall, *B*, was used as the church, as evidence of which he observes that all the columns which formerly stood in the hall, *C*, were found here. Ultimately the building appears to have come to an end by means of a conflagration which, unfortunately, destroyed all combustible relics. Attention is also directed to fragments of gravestones with relief-figures which are assigned to the transitional period between the Classical and the Byzantine styles of art. One of the fragments has four draped figures, two males and two females, three of which show a fibula on the right shoulder and the sign of the swastica (*crux ansata*) on the folds of the toga. The fibulæ are similar to a well-known late Roman type which has a cross-bar at one end of the arc, and the other running into a long stem generally ornamented. In describing a Gothic fibula (Fig. 84), found near Mostar, I drew attention to Lindenschmit's idea that this form of Roman fibula was the transitional link between the ancient and the so-called Merovingian brooches. The relief-figures on the sculptured fragments at Zenica at once reminded me of the illustrations from the Halberstadt diptych given on

page 426 of Lindenschmit's 'Handbuch der Deutschen Alterthumskunde.'

About 250 paces south-west of the site of this building a Roman cemetery has been discovered. The graves examined disclosed uncremated bodies lying at full length in cists made of flagstones set on edge.¹

E. Dr Truhelka also describes extensive Roman remains at Stolac, recently brought to light by special investigations, consisting of the following ruins of buildings: a walled enclosure to which he gives the name "Mausoleum," although he thinks this was not its original purpose; the remains of a bath-house with extensive outhouses attached; a house with rich mosaic floorings; a portion of a second bathing establishment; a small temple; and the foundations of some other buildings.

The "Mausoleum," of which only the foundations remained showing a wall one *mètre* thick, was a small enclosure measuring 3.9^m. by 2.6^m. inside. Here three burial-vaults were found. The first was built of stone and lime, and covered over with a flat stone. The floor was laid with gravel, on which lay three skeletons along with the following objects—viz., a beautiful glass cup ornamented with circular lines enclosing a check pattern, a silver bracelet with round knobs, and three plain silver bracelets of various sizes. The second vault was entirely lined with flagstones and covered in with the same material. It contained three

¹ W. M., vol. i. pp. 273-284.

skeletons, an extremely elegant glass jug standing 22^{cm.} high, an elongated flask and a cup—also of glass, a small stone dish, and a bronze stilus. The third vault differed from the others in construction in being covered by large tiles, placed roof-like, and resting on ledges half-way down. In this vault there were two skeletons, a glass cup with an overhanging lip, some bronze buckles, a bronze fibula, a small chisel, and a couple of glass beads.

Outside the “Mausoleum” were detected, by probing the earth, four other vaults similar to the above, which yielded a silver fibula, a silver buckle, a small vessel of thin bronze plate, and a bronze ornament.

Among the *débris* of the bath-house two exquisite gems in intaglio were found. One, a carnelian, shows a vase placed on a tripod from which two springing hares and two ears of corn project, and two hounds rampant at the base of the tripod. The other gem, an emerald, represents Apollo with one hand resting on a column and the other holding a laurel-leaf. Besides these gems a few coins and many toilet objects were collected; also an iron balance-beam, 9½ inches long, and a leaden weight (275.80 *grammes*) with an iron loop for suspension inserted into it.

The mosaic-house consisted of four nearly square rooms, all of which had been floored with mosaics of different patterns—one showing an extremely complicated design.¹

Subsequently the investigations in this locality were

¹ W. M., vol. i. pp. 284-302.

continued by Mr Fiala, who, along with Dr Patsch, describes the relics found in three other private houses near the same place, one of which contained two rooms with very fine mosaics. One of the mosaics is a geometrical pattern in the shape of a circle surrounded by a rope border, the interior of which is filled in with symmetrical spaces formed by the intersections of

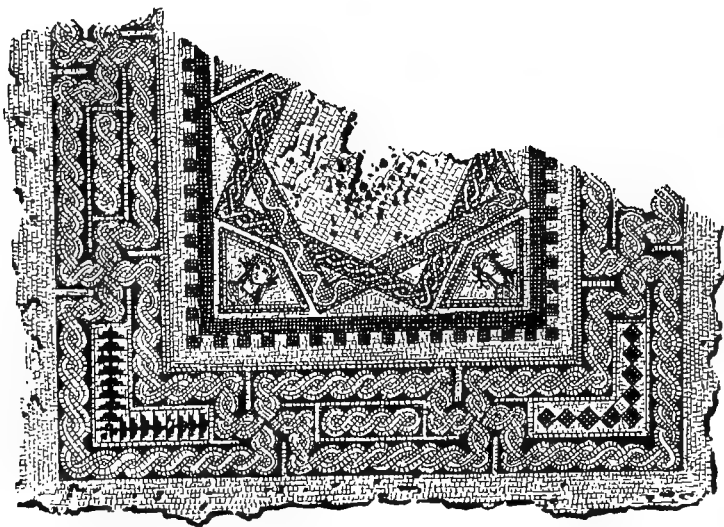


Fig. 125.—ROMAN MOSAIC WORK FROM STOLAC, HERZEGOVINA.

numerous arcs of circles all running at uniform distances from the centre to the circumference. Only about half of the other mosaic remained, sufficient, however, to show a still more elaborate design (Fig. 125). The two human figures seen in the illustration are given in colour in the publications of the Museum.

While digging the ruins of another house, the work-

men came upon a part of the aqueduct which supplied the Roman town with water from a spring some two *kilomètres* from Stolac.

The relics collected in the course of these excavations are of the usual character, among which the following may be specially noted : a bronze fibula with two needles like that found near Mostar (Fig. 71), circular clasps or buckles, finger-rings, a bronze stud, an iron arrow-head with long wings, a couple of iron keys, the torso of a stone statue, and various inscriptions.¹

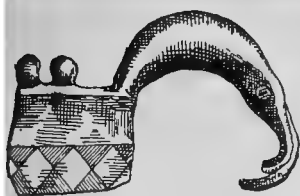
F. But of all the sites showing Roman occupancy hitherto investigated, perhaps the most curious is that known under the name of "Gradac bei Posušje," situated in the north-west corner of Herzegovina, and explored by Mr Fiala in 1892-93. Here, on the top of a hillock, are the foundations of a rectangular building measuring 61^m. by 75^m. The walls were 3^m. thick, and the enclosure was approached by a flight of stone steps, fragments of which were still *in situ*. At the south-west corner the wall (outside) was strengthened by a series of buttresses, in the form of short walls running at right angles to it. Inside the enclosure, at the same corner, the foundations of a few rooms were exposed ; but elsewhere the entire area was devoid of structural remains, except in the middle line and nearer the entrance side, where there was a square pedestal on which it was conjectured that a statue once stood. In the *débris* were collected broken columns, some fluted

¹ W. M., vol. iii. pp. 272-283.

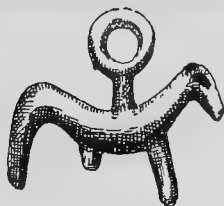
and some plain; portions of floriated capitals and friezes; figure-reliefs representing men and birds; fragments of inscriptions, &c. Of other relics, only a bronze fibula (*mittel la Tène*), an iron finger-ring—showing a space for a setting—and a large iron knife have been noted.

At the foot of this hillock (Gradac) were the scattered *débris* of buildings which had been totally destroyed, and from which a remarkable assortment of relics was collected. The majority of the objects are of Roman origin, but there are also La Tène and even Hallstatt types of fibulæ. Among the more singular objects may be mentioned a disc-fibula of silvered bronze with eight projecting knobs; another double-pinned fibula (bronze) like that figured from the vicinity of Mostar (Fig. 71); and a reducing compass of bronze, 16^{cm.} long, the legs of which are ornamented with dots and circles. Of the rest, the majority are made of bronze representing pins, spoons, stili, finger-rings, buttons, keys, buckles, clasps, handles, a toy-wheel, a spur, a spear-head, an arrow-point, a socketed celt with side loop, bracelets, fibulæ, &c. Of iron there are bridle-bits, a spur, a pair of pincers with six perforations near the tip of each blade, several socketed lance- and spear-heads, keys, suspension-hooks, &c. As an example of the mixed character of the relics, I reproduce a group of the objects figured in Mr Fiala's highly illustrated article (Fig. 126), in which we see a socketed celt—a form usually assigned to the pure Bronze Age—a fibula of the Hallstatt type, and an iron spear-head like the well-known weapons of La Tène.

I may mention that overlooking the Gradac, and



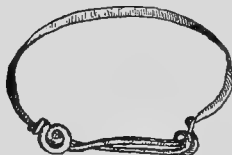
Bronzefibel (hallstattisch)



Pferdförmiges Bronzeanhängespl



Spiralarmring, Bronze



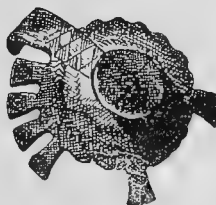
Armring, Bronze



Hohlkelt, Bronze



Kleiner Spiralring
Bronze



Bronzene Zierscheibe



Eiserne
Lausenspitze

Fig. 126.—OBJECTS FROM GRADAC.

(The first two and smaller Spiral= $\frac{3}{4}$; the rest= $\frac{3}{8}$.)

separated from it only by a slight hollow, there is another hill called Kulina, which is proved to be the

site of a Roman camp. This enclosure is egg-shaped (100^{m.} by 70^{m.}), and the walls were constructed of roughly hewn stones and mortar. Only tentative explorations have as yet been made here, but enough to show that, previous to its occupation by the Romans, it had been^a a prehistoric stronghold.¹

G. More recently (1893), Roman remains have been exposed at Mali Mošunj, Putičevo, and Varošluk in the valley of the Lašva.

At the first-mentioned place were exposed the ruins of a private villa, consisting of a hall and four rooms. The principal relics are a small hand-bell of sheet-iron, like those used in early Christian times in Scotland and Ireland, some iron nails, a few fragments of glass and pottery, and six coins dating from 235 A.D. to 363 A.D.

The second site was a mere relic-bed, composed of dark earth and charcoal 10^{cm.} to 30^{cm.} thick, exposed in a railway cutting at a depth of 1.50^{m.}; but of the precise circumstances of this find no information has been procured. The relics, however, are of the greatest significance, and include bronze coins of Maximianus and Constantinus I., two fibulæ, one Roman and the other a La Tène type, and a small bracelet of sheet bronze ornamented with the herring-bone pattern. Of iron there is an assortment of weapons and tools—knives, a hammer, an awl, a couple of hatchets, keys, a spear-head, several shears like those found on the Brit-

¹ W. M., vol. iii. pp. 257-272.

ish crannogs,¹ and a square bar of copper enclosed in an iron shell (Fig. 127). There were also several wide-mouthed earthenware dishes, some of which had been painted with linear designs.

The third discovery in the valley of the Lašva was the foundation of a building which is of singular interest as being that of an undoubted Christian basilica. It was known to the country people under the name Varošluk, and, like the previous find, was exposed while the railway to Travnik was being constructed. The building measured 40^m. in length and 16.65^m. in breadth, and contained various compartments as shown on the plan (Fig. 128).

In the apse, *E*, immediately beyond the nave, *D*, was an altar formed of a square slab of polished white marble supported on four small pillars. What the rooms, *A* and *K*, which entered from the narthex, *C*, were used for is not known, but the others are supposed to have been chapels. The relics found here are a Roman lamp ornamented on the surface, a glass cup studded over with small knobs, an iron key, a knife with loose ring attached to it, and a few iron nails.²

Dr Truhelka notifies the discovery of another building which he considers to have been an early Christian church.³ The locality is 4 *kilomètres* north of the Roman ruins of Vitina, in the north-west corner of Herzegovina. The ground-plan of this church is a simple rectangle, from one end of which an apse projects. Its

¹ Lake-Dwellings of Europe, figs. 106 and 147.

² W. M., vol. iii. pp. 227-247.

³ Ibid., p. 525.

greatest length is 8.20^m. and breadth 5.70^m. The place where the altar stood within the apse still remained,

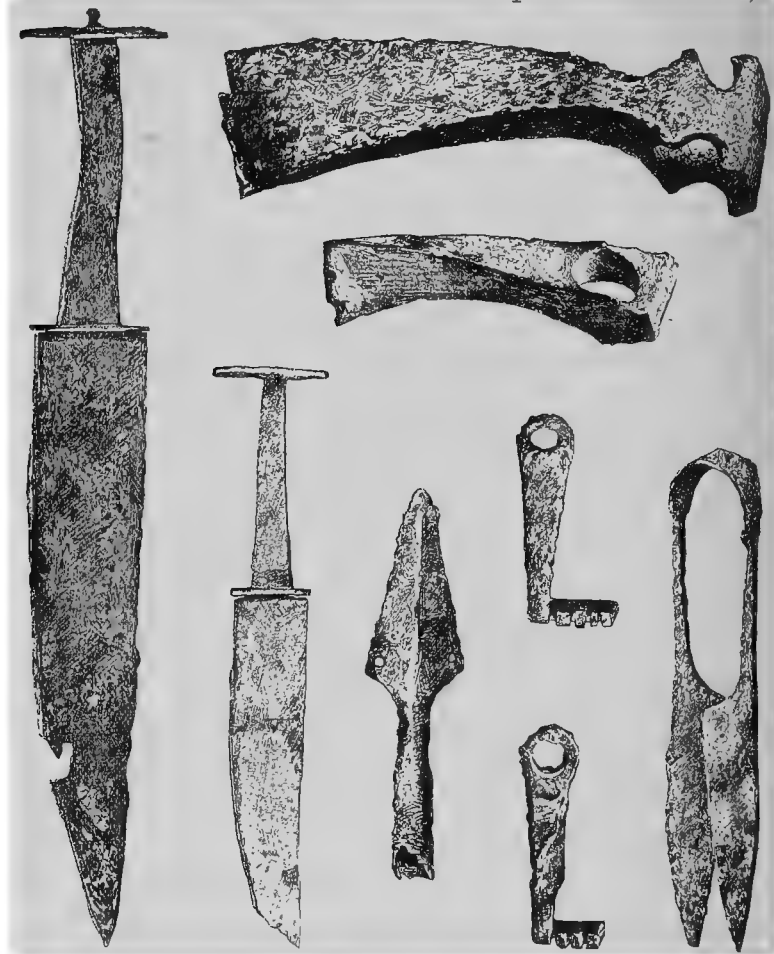


Fig. 127.—IRON IMPLEMENTS FROM PUTIČEVO (8).

and showed the sockets in which its supporting pillars were inserted—one of the pillars being actually found.

Round the apse there was a stone bench, and at its end, on the left, a massive square block which might have served as an ambo. From the structure of the pavement and fragments of roofing-tiles it was proved that this chapel was in existence during Roman times. It

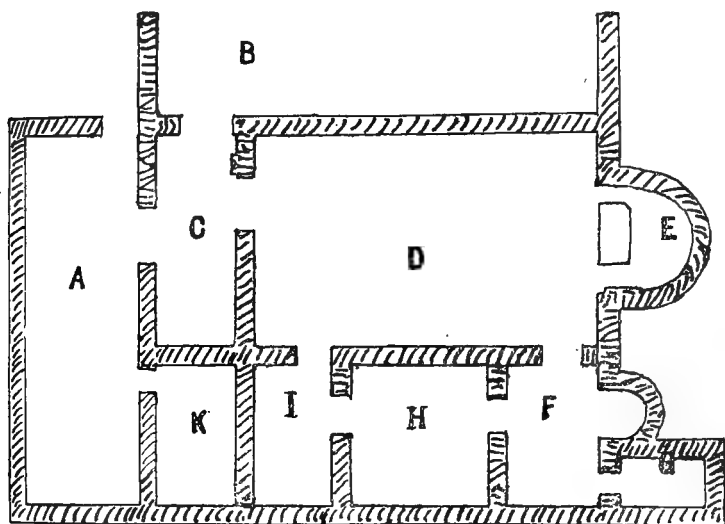


Fig. 128.—GROUND PLAN OF THE BASILICA OF VAROŠLUK.

may also be noted that in the vicinity was found the fragment of a tile stamped with the letters LEGIO IV.

It is unnecessary to tabulate the minor discoveries made throughout the provinces since the Government took archæological researches into their own hands. Scarcely an agricultural operation involving excavations can be executed without revealing Roman antiquities. Radimsky in his numerous rambles has found them almost everywhere, generally mixed pell-mell with

those of the prehistoric inhabitants. Of this kind of research we have had already a striking example in the Mostar district. Nor can there be any doubt that this commingling of the products of past civilisations

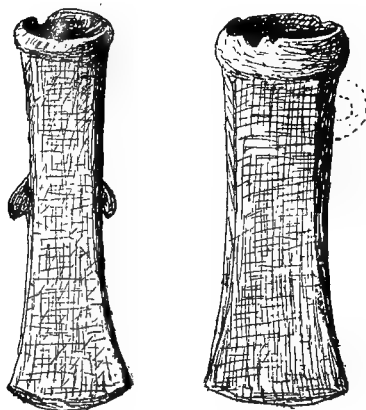


Fig. 129.—BRONZE SOCKETED CELTS
FROM GRAHOVO (3).

is the normal state of matters throughout the length and breadth of the land. We find that such has been the case at several places in the neighbourhood of Bihać,¹ and at Grahovo in the district of Livno. The most interesting objects described from this latter locality are a clay ring for supporting round-bottomed dishes, and a

clay reel (*Spule*), both common objects in the Swiss lake-dwellings. Also two socketed bronze celts (Fig. 129), one with the ordinary side loop, and the other with two solid projections from its body.²

A curious association of Roman remains with objects of the Stone Age, mostly flint-flakes, of which one is obsidian—the first of the kind found in Bosnia—has been observed near the village of Kalesia, in the district of Zvornik. The situation is an isolated hillock with a small plateau on the top, measuring 40^m. by 20^m.³

From the village of Hatelj, in the vicinity of Bilek,

¹ W. M., vol. iii. pp. 39-60.

² Ibid., p. 291.

³ Ibid., p. 287.

there is figured¹ a peculiar spear-head, said to be found in a field associated with Roman remains, which I reproduce (Fig. 130), to show by comparison its similarity to one found in Lake Bourget, and figured in the 'Lake-Dwellings of Europe,' p. 544. The area of distribution of these weapons is in Western Europe. Lindenschmit figures four examples of the same class of weapon among Merovingian remains, two from the Museum in Mayence and two from that in Darmstadt.² One was found in the excavations for the "Correction des eaux du Jura," at Pont de la Thielle; and another is at Namur. Baron de Bonstetten figures an example found in a Burgundian grave at Senery,³ the Abbé Cochet records five from graves in Normandie,⁴ and Baudot two from the graves at Charnay.⁵



Fig. 130.—AN IRON SPEAR HEAD FROM HATELJ ($\frac{1}{3}$).

As the Romans utilised the forts and roads of their predecessors, so their successors utilised the ornamental buildings and sculptured monuments which

¹ W. M., vol. iii. p. 297.

² Handbuch der Deutschen Alterthumskunde, p. 176, figs. 71-74.

³ Recueil des Antiquités suisses, plate xxiii.

⁴ La Normandie souterraine, p. 283.

⁵ Mém. sur les Sépultures de l'Époque mérovingienne, plate ii. figs. 8 and 11.

they found in the land, just as it suited their own tastes, often by ruthlessly demolishing them for the sake of the stones, many of which may still be found in the walls of medieval buildings. Notwithstanding the wealth of Roman art and civilisation scattered over this corner of the Balkan peninsula, it was little known till quite recently. True, there were here and there a few weathered monuments, such as the baths of Banjaluka and Višegrad, the tower of Livno, a few bridges, portions of the military roads, some coins and inscriptions, the amphitheatre at Pola, and, of course, the palace of Diocletian, in itself a priceless monument of the architecture of the period. Not, however, till the spade was freely wielded by the officials of the National Museum had Roman archæology in Bosnia and Herzegovina taken a foremost place in European research.

The Bogomiles.

I have now and again incidentally referred to some of those large hoary-looking gravestones so profusely scattered over the lands of Bosnia and Herzegovina, and commonly assigned to the Bogomiles. They are called by the country people "Mramorovi," "Stećci," or "Mašeti." The first of these designations is derived from the material (limestone) of which the monuments are usually made, the second from their sarcophagus-like shape, and the third from the tradition that they are the sepulchral memorials of ancient heroes. They are met with singly or in groups, comprising in some instances



BOGOMILE GRAVESTONES FROM RADMILOVIĆ (HERZEGOVINA).

several hundreds, not only in the vicinity of the present villages and highways, but also in the more unfrequented places—lonely hill-tops, secluded valleys, and even in the impenetrable depths of primeval forests. Some, rolled off their pedestals or broken by rude hands, are partly or entirely sunk in the earth; others are closely set in rows in confined areas, or irregularly scattered over the bleak moor. Unlike the dolmens and rude stone monuments of Western Europe, they are hewn into rectangular blocks, varying in size from about 6 feet in length by 3 or 4 feet in breadth and height, to huge masses so heavy as to make it a puzzle how they had ever been transported from the quarry in which they were hewn. Some of the larger examples are like tall cubes, with the peculiarity of being narrower at the base than at the top, a feature which gives them a very original and striking appearance (Plate XXXI.). Others have the aspect of roof-shaped sarcophagi, a form probably borrowed from the Romans; but if so, the resemblance has not been carried beyond the external configuration, as none of the Bogomile stones are hollow, and the interment is always in the earth beneath. In a few instances the top takes the shape of a double roof, indicating thereby a twin-burial. Generally these megaliths are supported on large flat stones which actually cover the graves, and in which there is usually a shallow bed chiselled out to receive the upper stone. Not unfrequently the monument resembles two stones so placed but hewn in one solid block.

Although only one in thirty is found with any kind of ornamentation, the actual number so characterised, when collected over the entire area of their distribution, amounts to something like two thousand. This ornamentation may be architectural only, or it may be combined with floral decorations and figure designs. The architectural elements most commonly met with are the arch and columns, rope-pattern borders, spirals, zigzag and wavy lines (Fig. 131). Floral decorations

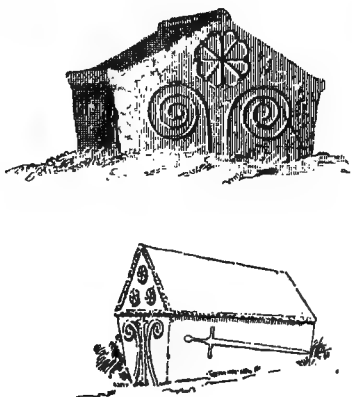
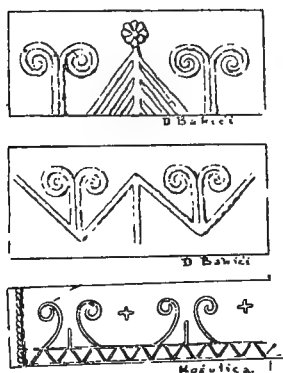


Fig. 131.—VARIOUS ARCHITECTURAL DESIGNS ON GRAVESTONES.

appear as borders of running trefoils, tendrils, sexfoil-stars, the lily, and other foliage (Fig. 132). The cross, plain or ornamental, stars and half-moons, are occasionally represented. The frequency of the half-moon or crescent on these stones has given rise, in the minds of some people, to the idea that they owe their origin to the Mohammedans. But it must be remembered—a fact which may not be generally known—that the crescent

is a pre-Turkish symbol, prevalent among the southern Slavs long before the taking of Constantinople, when it was adopted by the Mohammedans. Shields and swords, especially the double-handed weapon so charac-

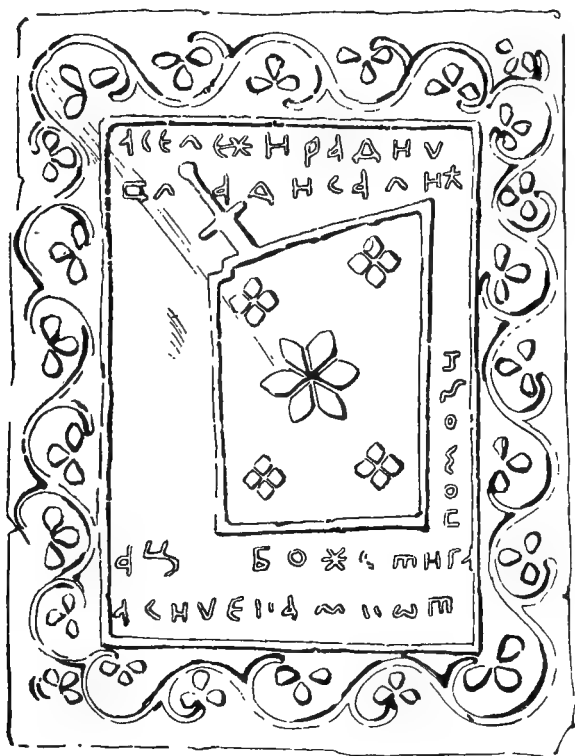


Fig. 132.—GRAVESTONE FROM THE CEMETERY OF BOLJUNI.

teristic of the fourteenth century throughout a large part of Europe, may occasionally be seen sculptured in relief on all the varieties of these monuments.

But of special interest is the figure-ornamentation,

consisting of men and animals, generally depicted in low relief, and representing a variety of social events, such as incidents from the chase (Fig. 133) and the

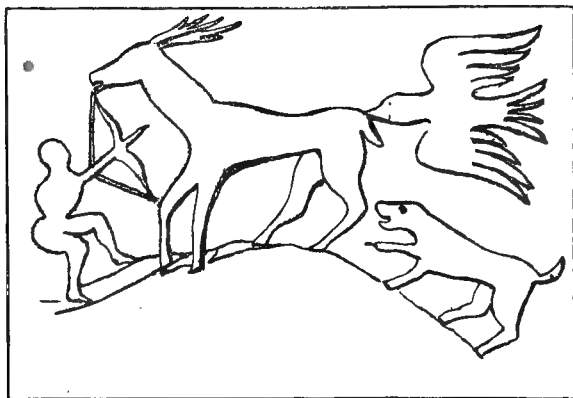


Fig. 133.—STAG-HUNT WITH DOG AND FALCON (HERZEGOVINA).

battle-field, the dance and other idyllic scenes. In these the huntsman is seen often on horseback, armed with sword, lance, or bow, pursuing the deer, bear, or wild



Fig. 134.—KOLO DANCE FROM NEKUK (STOLAC).

boar. The "Kolo" dance is usually represented by rows of men and women, or the members of the same family, with hands joined, and dressed in fitting costumes, the

men in tight trousers and short kilts, and the women in long flowing garments (Fig. 134). The figures in these national dances are sometimes reduced to the simplest conventionality, as shown in Fig. 135. Human beings,

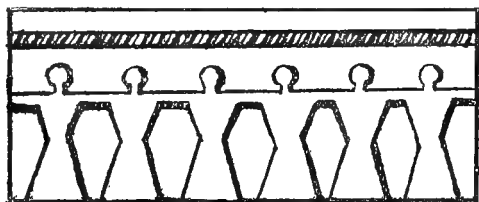


Fig. 135.—CONVENTIONAL KOLO DANCE.

male and female, are also depicted singly, possibly an attempt at portraiture (Fig. 136). Mythical subjects are represented by the winged horse, flying dragon, and



Fig. 136.—GRAVESTONES NEAR STOLAC AND BOLJUNI.

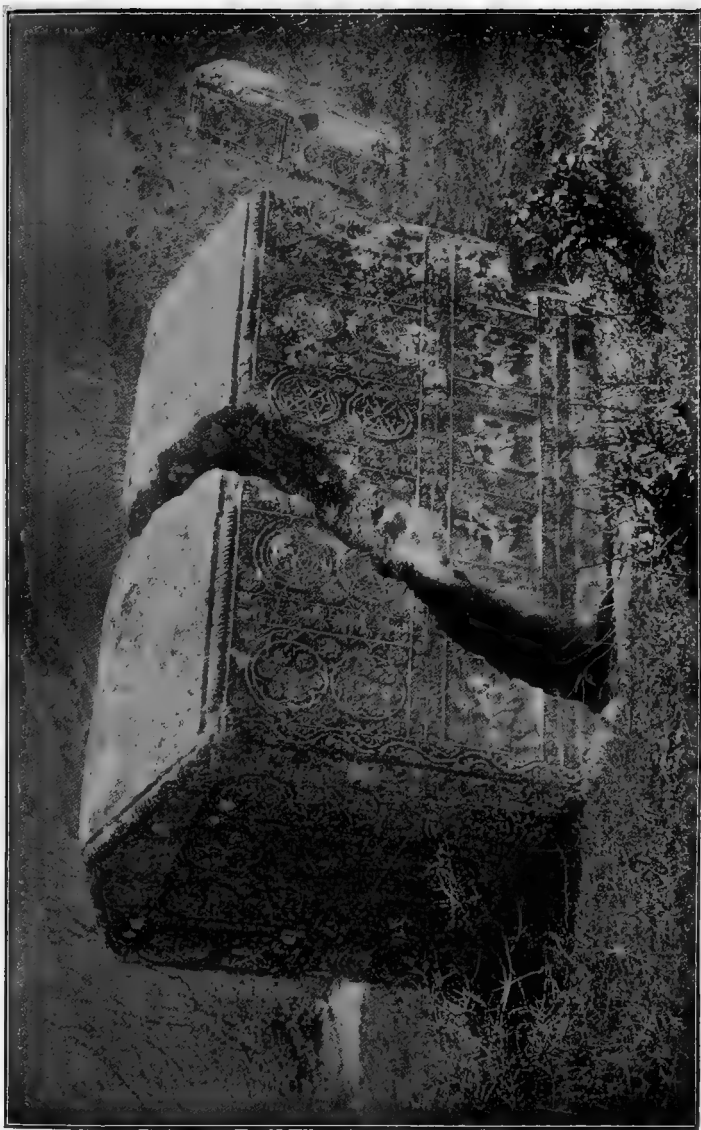
other fanciful animals; also by geometrical designs of a bizarre character.

The artistic skill displayed in these decorations is not of a high order—with, however, some exceptions—and

in this respect there is a marked difference between those of the north and the south, the latter being architecturally superior to the former—a result doubtless due to the influence and proximity of the aristocratic republic of Ragusa, which for a long time fostered Italian art.

It is not, however, on the south side of the watershed between the Adriatic and the Danube that the most highly-decorated specimen is to be seen, but in a small glen on the right bank of the Bosna, some 60 *kilomètres* north of Sarajevo. Here, a short distance up the valley of the Trestenica, is the burial-ground of Gyaursko-polje, “The field of the unbelievers.” “Gigantic tombstones lie scattered about, some of them deep sunk in the earth. No sign, no writing, tells us aught of the dead. The only exceptions are two sepulchres rich in decorations, one quadrangular column 2.25^m. in height, and a mighty sarcophagus already forced open.” These two monuments (Plate XXXII.) do not belong to the same period, the sarcophagus being the older. The column is post-Turkish, and dates to the period of transition when the final conversion of the people to Mohammedanism was in progress. It is dimly seen on the right-hand corner of the illustration, and the rough sketch (Fig. 137) gives some idea of the intricacy of its geometrical details.

The sarcophagus is 3^m. in length, and about half that in height and breadth. Its four upright surfaces are highly ornamented, as seen on the illustration (Plate XXXII.). The other side is divided lengthwise into two



BOGOMILE GRAVESTONE NEAR THE STATION OF KAKANJ-DOBOJ (BOSNIA).

panels by a pretty decoration of lilies. The upper contains five mailed knights on horseback, carrying spears in their hands. The lower represents a hunting scene, in which two huntsmen are seen in the act of attacking a deer and a wild boar followed by hounds; also three conventional trees, to one of which a hunting-tiger is chained, and above this is a winged dragon. The end view in the illustration is ornamented with twelve panels bordered with lilies, and each is filled with a circle circumscribing sexfoils and rosettes. The other end is divided into three transverse panels. The upper contains five towers with doors and windows, rosettes, and an oak-branch; the middle space has a group of three figures, with graduated terraces on each side; in the lowest, underneath a broad band of lilies, there are two pages holding a couple of prancing horses saddled and bridled. There is a tradition among the monks of the Franciscan monastery of Sutjeska to the effect that this tomb is the resting-place of a French crusader. Its style of art, which shows some foreign elements, gives plausibility to this idea, but, notwithstanding, it is claimed as a product of indigenous art. "Place, surroundings, form, decoration," says Asboth, "all testify to the fact that we have

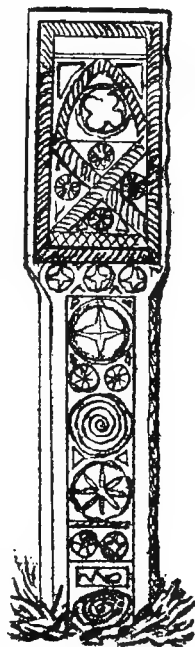


Fig. 137.—PILLAR IN
GYAURSKO-POLJE.

before us the tomb of a Bosnian magnate of the Bogomilian faith."

It has been observed that the sepulchral representations on these monuments have no tendency to sadness, but, on the contrary, are selected from the gayest scenes of life, such as hunting tournaments, dancing, &c. This is supposed to emanate from the peculiar religious ideas of the people, who looked upon the grave as the happy home which freed them from all worldly troubles. Death to them was a welcome deliverance, and consequently a matter of rejoicing to their friends. Dr Truhelka states that this opinion is borne out by the tenor of the short epitaphs which are occasionally to be seen on some of them. For example, here are two of his translations culled from his admirable article on the subject: "Hier wollen diese Knochen ruhen." "Verdammt und abermals verdammt sei, wer mich berührt."¹ The inscriptions being in Glagolitic letters, are not readily deciphered; but about a hundred examples have already been collected, which, together with further discoveries, may ultimately throw much light on the Bogomilian controversy.

The area of their geographical distribution extends but slightly beyond the present limits of Bosnia and Herzegovina. Examples have been found as far south as the borders of Albania, and as far east as the right bank of the Drina.² They are not, however, equally distributed within this area, being less numerous in the

¹ W. M., vol. iii. p. 419.

² See F. Kanitza in 'Mitt. der Anth. Gesellschaft in Wien,' 1889.

northern parts of Bosnia, and most numerous in the district of Vlasenica, where not less than 6325 have been counted. In Herzegovina their number amounts to 22,000, and the entire number in both provinces is estimated at 60,000. On the other hand, they are most sparsely met with in the north-western parts of Bosnia bordering on Croatian lands, as in the fourteen departments belonging to Banjaluka and Bihać only 706 are known.

It will thus be seen that the area of distribution of these monuments coincides almost exactly with that of the people who professed the Bogomilian faith; and this is the main argument in support of the current opinion that they were erected by that peculiar sect. But in more recent years this theory has been controverted, on the ground that the cross is occasionally to be seen on them; and in face of a tradition that the Bogomiles hated the cross, it is considered very improbable that they would adopt this sign as an emblem of their faith. Dr Truhelka observes that there is no evidence to show that the Bogomiles really objected to the cross, except tradition, which comes through the Church, their bitter enemies and persecutors. The same author points out another element which complicates the question—viz., that the cross was used simply as an ornament, without the symbolic meaning attached to it by Christians; and as a proof of this he describes a number of sculptured crosses from the cemetery of Milavići, in Dabar-polje, which are clearly rude representations of the human form (Fig. 138). One speci-

men rudely resembles a human body with outstretched arms; other two retain the rotundity of the head, while

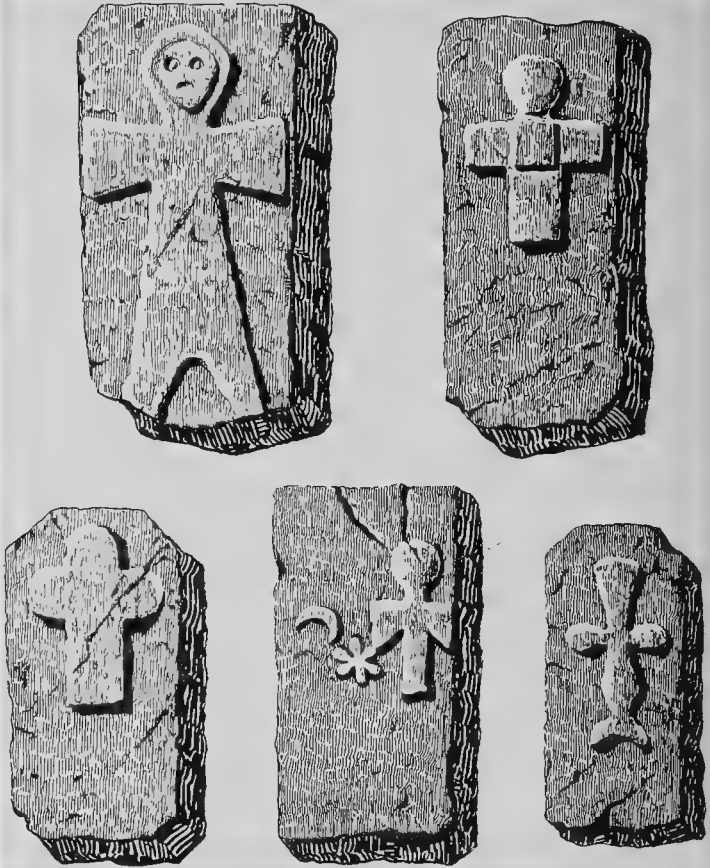


Fig. 138.—GRAVESTONES FROM THE CEMETERY OF MILAVIĆ.

one also shows a prominence over the chest; and another indicates the bifurcation for the lower limbs—all suggesting the evolution of the cross from the human form.

It is universally admitted that Bogomilian art, as represented on their sepulchral stonework, was in its most flourishing stage from the beginning of the fourteenth century till the conquest of the country by the Turks in 1463. According to the more recent observations, the monuments of that period were restricted to the flat, the tall cube-shaped, and the sarcophagus-like forms, so that all those which deviate from these three types must be of a later date. At the close of this period, the standing cross, the pillar, stele, &c., were introduced; and hence the presence of any of these forms among the older monuments indicates Turkish influence. The opinion which now finds most acceptance among native scholars is, that the so-called Bogomile gravestones represent the work of all the Christian denominations then known in the country—viz., Catholic, Orthodox, and Bogomile.

The voluminous article of Dr Truhelka, entitled "Bosnian Sepulchral Monuments of the Middle Ages,"¹ is supplemented by a second from the pen of Director Hörmann on the "Epigraphical Monuments of the Middle Ages."² Neither of these writers has said much on the structure and contents of the graves, dwelling rather on the form, sculptures, and inscriptions of the external stone monuments; but this omission may be due to the fact that no systematic exploration of the interments has yet been undertaken. The two following examples from Mr Hörmann's paper are, therefore, worthy of

¹ W. M., vol. iii. pp. 403-473.

² Ibid., pp. 481-502.

careful consideration, inasmuch as their characteristic features, both above and below ground, are described.

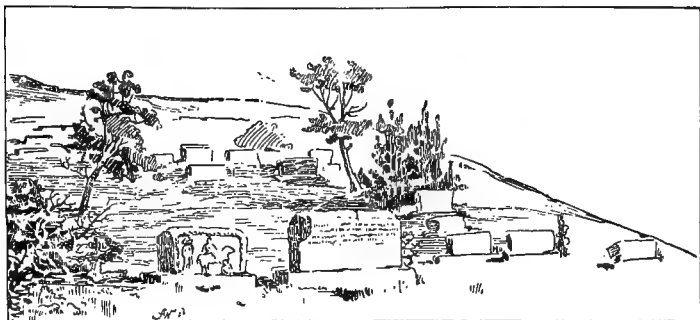


Fig. 139.—THE BOGOMILE CEMETERY OF STARO-SELO.

At the west end of Staro-selo, a small village of thirty-three houses in the district of Jajce, there is an

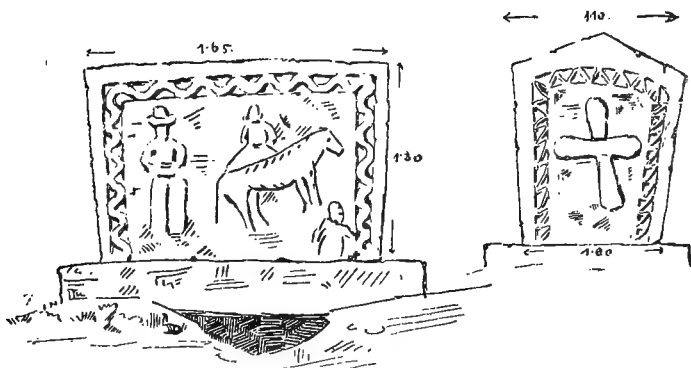


Fig. 140.—SIDE AND END VIEW OF A GRAVESTONE (STARO-SELO).

ancient cemetery containing a number of flat and sarcophagus-like gravestones (Fig. 139). This graveyard lies on the western slope of a hill, and dates back to the

most flourishing period of these monuments. Among its numerous gravestones are two of special interest on account of their size. Both rest on colossal grave-covers. The smaller of the two has its south side rudely ornamented with the figure of a woman on horseback, and two men, one wearing a hat and wide trousers (Fig. 140); and the panel on which this group is represented is surrounded by a wavy-line border. One of the ends of the stone is also ornamented with a cross inscribed in a zigzag border. The flat stone, on which the monument rests, lies on the bare earth without any appearance of a vault underneath.

The second sepulchral monument consists of a stone-built vault covered over by a flat stone, and above it a layer of smaller stones followed by the large flag-stone on which the exposed megalith reposes. Fig. 141 shows this arrangement, and gives the dimensions of the respective parts in *centimètres*.

The vault, it will be observed, measures 6 feet 4 inches in length, 3 feet 5 inches in breadth, and 3 feet 4 inches in height. It was proved, from repaired breaches in the wall, to have been opened three different times, and there is a story current that on the first occasion a quantity of silver bars was found and carried

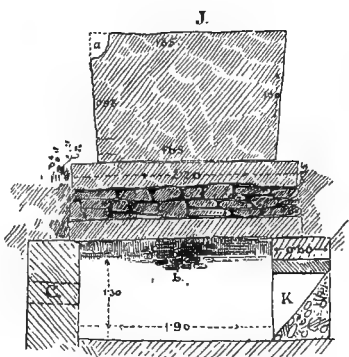


Fig. 141.—SECTION OF SEPULCHRAL MONUMENT (STARO-SELO).

away by a stranger. This stone has an incised inscription (Fig. 142), thus rendered into German by Mr Hörmann :—

Im Namen des Vaters, des Sohnes und des heiligen Geistes, Amen. Dies ist der Grabstein des Radojica Bilić. Durch die Gnade Gottes und mit Hilfe meines Stammes habe ich bei Lebzeiten diese vielverehrte Gruft erbaut und auf ihr diesen Stein gesetzt und dieses Haus der Ewigkeit—so es der Wille des Herren und Gottes ist—für mich und meine Gefährtin vorbereitet. Ich bitte Euch, Brüder, Tanten, und Schwägerinnen: kommt und betrauert mich, tretet mich aber nicht mit den Füßen! Denn ihr werdet sein wie ich, ich aber kann nicht wieder werden, was ihr seid! Dies schrieb Veseoko Kukulamović.

In looking over the extensive collection of inscriptions as arranged and translated in the articles of Hörmann and Truhelka, one is struck with the intense religious fervour and strong family likeness which run through them all. The majority begin with “Hier ruht” (*hic jacet*), and, after curtly stating one or two events in the deceased’s career, or a pithy moral sentiment, they generally end by giving the name of the person who erected the monument. A typical example is that on the stone figured on p. 367 (Fig. 132), thus translated :—

Hier ruht Radič Vladisalić, und den Stein schnitt (sein) Vater. Gott, sei Du ihm gnädig!

The stone which bears the above inscription is from the necropolis of Boljuni, some two hours’ walk south of Stolac. A large number of the gravestones here are

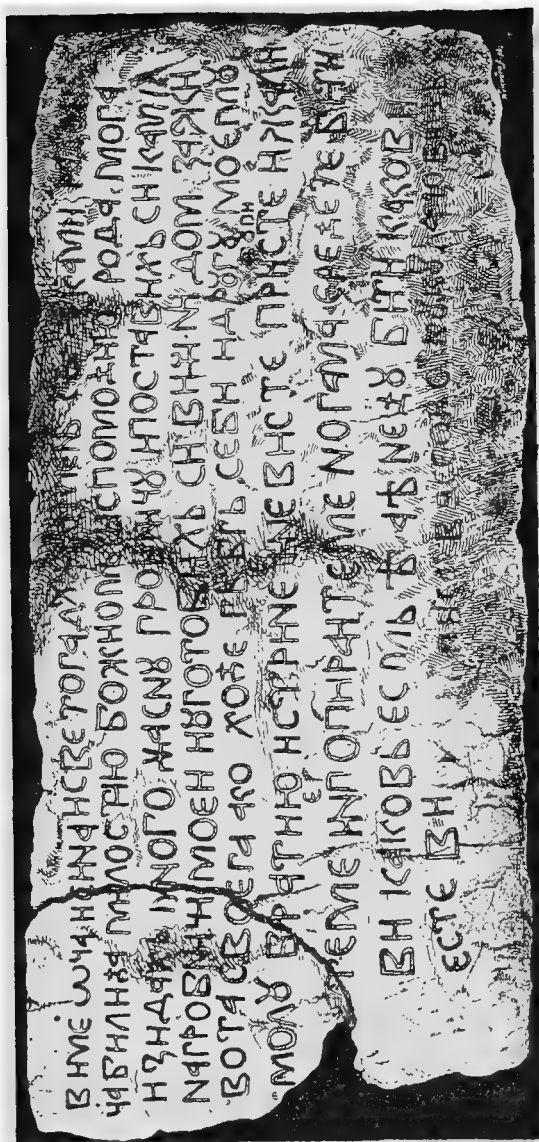


Fig. 142.—INSCRIBED GRAVESTONE (STARO-SELO).

ornamented with shields, conventional animals, or other designs, and not fewer than twelve bear inscriptions, most of which give the name of the artist or scribe, as in the following :—

Hier ruht das gute Weib, Stana Gjurenovica. Zelija schnitt es, Ratko schrieb es.

During the excursion to Glasinac we had an opportunity of inspecting a Bogomile cemetery at Han



Fig. 143.—BOGOMILE CEMETERY, CRKVINA, GLASINAC.

Sarenac, situated on a plateau on the right-hand side of the road from Podromanja to Rogatica. The plateau, which is connected with the higher hills beyond, terminates at the roadside in a steep declivity, on the edge of which there has been erected a tall obelisk in commemoration of a battle fought in the neighbourhood at the time of the War of Occupation in 1878. Upon as-

cending to this monument we almost immediately came upon the gravestones scattered over the plateau (Figs. 143 and 144). They have a dilapidated appearance, many of the larger ones being off the straight or fallen from their original positions. They are all made of limestone rock, and, though greatly weathered, appear to have been hewn with much precision and skill. They are mostly rectangular blocks with a flat or roof-shaped



Fig. 144.—ARCHÆOLOGISTS AMONG THE TOMBS, AUG. 19, 1894.

surface; but few of them have the gigantic proportions ascribed to them in some other cemeteries. On one we were shown a double-handed sword, some 4 feet long, sculptured in relief on its upper surface. The cross-guard was about as long as the grip, which was large enough to give room for both hands, and the hilt terminated in a round pommel. This form of sword is

characteristic of the latest period of Bosnian independence—viz., fourteenth and up to the middle of the fifteenth century—and it is one of the most common objects on the Bogomile gravestones. Specimens of the actual weapon are, however, very rare. One has been found under a gravestone at Kupres, which is now placed in the Museum at Sarajevo.

Mohammedans show great respect for these ancient monuments, and turbaned pillars may not unfrequently be seen side by side with them—a reverence probably due to the fact that many of the present inhabitants are the descendants of the people who erected them, and who merely changed their creed to preserve their lives. Indeed, if my information be correct, it would appear that four hundred years of the outward profession of Mohammedanism have not sufficed to entirely extinguish this ancient faith from the hearts of the people.

The exact nature of the religious principles held by the Bogomiles is a problem still enveloped in mystery. Persecuted by Catholics and Mohammedans alike, these unfortunate victims of the religious intolerance of the age have left little literature behind them; and even such documents as did escape the ravages of the period have been dispersed among foreign nations. The ascetic and morose aspect of their creed, which has so long found currency in European literature, has come through the writings of their enemies, and of course paint the Bogomilian heresy as diabolical as possible. "The rise of the Bogomile sect," writes Mr Asboth,

“under the southern Slavs occurred simultaneously with the introduction of Christianity, and may be traced back to three causes. The heathen traditions and the apocryphal books had called forth the inclination; Armenian Manichæans gave the inciting impulse; and the spread of the sect was promoted by the excrescences of the Byzantine Church itself and of its followers.”

As to the origin of the name, one account states that a priest called Bogumil preached the new doctrines with much acceptance among the southern Slavs, and so gave his name to the sect; and it has been surmised from a reference to the “Bulgarian priest Jeremias,” in one of the Christian documents of the sixteenth century, as *Bogu ne mil*—not beloved by God—that he and this Bogumil priest were one and the same person. Others, however, derive the word from *Bog z’ milui*—God have mercy. Their creed, like that of the Manichæans, turns on the dualism of the principles of good and evil in the scheme of creation, and is thus described by Neander:—

Satanael they regarded as the first-born son of the supreme God—in which they agreed with the Euchites, and with one particular view of the Parsic dualism—who sat at the right hand of God, armed with divine power, and holding the second place after him. To each of the higher spirits God had committed a particular department of administration, while Satanael was placed over all, as his universal vicegerent. Thus he was tempted to become proud; and, intoxicated with the sense of his power and dignity, was for making himself independent of the supreme God, and founding an empire of his own. He endeavoured also to lead away from their allegiance the angels to whom God had intrusted the management of the different

portions of the world ; and he succeeded with a part of them. The Bogomiles believed they found Satanael described in the unjust steward of the parable, and they expended much labour in expounding the several points in the parable in accordance with this notion. Satanael now called together the angels who had apostatised with him, and invited them to join him in laying the groundwork of a new creation, independent of the supreme God, a new heaven and a new earth ; for the Father had not yet deprived him of his divine form, he had not as yet lost the El, but still possessed creative power. He let himself down, therefore, with his apostate companions, into chaos, and here laid the foundations of this new empire ; with his angels he created man, and gave him a body formed out of the earth. To animate this being, he meant to give him a portion of his own spirit ; but he was unable to carry the work to its completion. Therefore he had recourse to the supreme God, beseeching him to have pity on his own image, and binding himself to share with him in the possession of man. He promised that, by the race proceeding from man, the places of those angels should be made good who had fallen from God in heaven. So the supreme God took pity on this image, and communicated to it a portion of his own spirit, and so man became a living soul. But now, when Adam and Eve, who had been created with him, became radiant with splendour, in virtue of the divine life that had been communicated to them, Satanael, seized with envy, resolved to defeat the destination of mankind to enter into those vacant places of the higher spiritual world. For this purpose he seduced Eve, intending by intercourse with her to bring forth a posterity which should overpower and extinguish the posterity of Adam. Thus Cain was begotten, the representative of the evil principle in humanity ; while Abel, the offspring of Adam and Eve, was the representative of the good principle. Satanael ruled in the world he had created. He had power to lead astray the majority of mankind, so that but few attained to their ultimate destination. It was he who represented himself to the Jews as the supreme God. He employed Moses as his instrument ; giving him the law,

which in fact the apostle Paul describes as begetting sin; he bestowed on Moses the power of working miracles. Many thousands were thus brought to ruin by the tyranny of Satanael. Then the good God had pity on the higher nature in humanity which had proceeded from himself and was akin to his own, in that humanity which had become so estranged from its destination by the crafty plots of Satanael. He determined to rescue men from the dominion of Satanael, and to deprive the latter of his power. For this purpose, in the 5500th year after the creation of the world, he caused to emanate from himself a spirit who was called the Son of God, Logos, the archangel Michael, exalted above all the angels, the angel of the great council, Isaiah ix. 6, who was to overthrow the empire of Satanael and occupy his place. This being he sent down into the world in an ethereal body, which resembled an earthly body only in its outward appearance. He made use of Mary simply as a channel of introduction. She found the divine child already in its swaddling clothes in the manger, without knowing how it came there. Of course, all that was sensible here was merely in appearance. Satanael, who held Jesus to be nothing more than a man, and saw his kingdom among the Jews drawn into apostasy and endangered by him, plotted his death. But Jesus baffled him; in reality he could not be affected by any sensuous sufferings. He who, though supposed to be dead, was exalted above all suffering, appeared on the third day in the full vigour of life; when, laying aside the veil of his seeming earthly body, he showed himself to Satanael in his true heavenly form. The latter was forced to acknowledge his supremacy, and being deprived by Christ of his divine power, was obliged to give up the name El, and remain nothing but Satan. Christ then ascended to the right hand of God, to be the second after him, and to occupy the place of the ruined Satanael. When Christ was now removed from the earth, and taken up into heaven, God caused a second power, the Holy Ghost, to emanate from himself, who took the place of the now risen and exalted Christ, by his influences on individual souls and the community of the faithful.

In their efforts to reconcile these doctrines with the actual phenomena of life in the material world thus created, the Bogomiles recognised the existence of an invisible Supreme Being from whom emanated all goodness. The Biblical account of creation they rejected as being inspired by the Evil One; also the Lord's Supper, the worship of images of every kind even to the crucifixion, mariolatry in all its forms, and baptism by water—for which they substituted prayer and the laying on of hands. Ecclesiastical ceremonies and church dignities were reviled, and orthodox priests they called "blind pharisees." *En revanche* the Church accused the Bogomiles of every kind of misdemeanour—of disobedience to authority, dishonouring the aged, insulting the rich, &c. Even the worship of demons was included in the list of charges brought against them—declaring that they made the Devil the creator of all visible things, and taught that by his command men took wives, ate flesh, and drank wine. "Everything," says Cosmos, "exists, according to the Bogomiles, of the will of the Devil. The sky, the sun, the earth, men, churches, crosses, and all that is God's, they give over to the Devil."¹ They were scoffed at for their slovenly appearance, and letting their beards grow. Altogether, they were regarded as hypocrites, who went about with bowed head, groaning in spirit, caring for nothing, begging their bread from door to door, and sleeping in the open. Of the Christian articles of faith, the Lord's Prayer alone was accepted by them, and this and

¹ Quoted by A. J. Evans, 'Through Bosnia and Herzegovina,' p. xxix.

other forms were repeated several times a-day. For such an array of iniquities they were condemned as heretics by a synod assembled at Constantinople in 1140, and persecuted till they finally abjured Christianity.

Such being the materials out of which Bogomilism was developed, we need not wonder if it gave birth to the peculiar doctrines in regard to the principles of good and evil, the creation of the world, &c., attributed to its devotees occupying the isolated mountains of Bosnia and Herzegovina. One thing, however, is evident, that the chief element of their creed was a strong objection to the growing ritualism of the Church, and a desire to go back to the simpler and purer forms of worship, such as were practised by the early founders of Christianity. If so, the despised Bogomiles may be regarded as the precursors of the Reformation in Europe.

A searching investigation of the social and religious principles held by this almost forgotten sect is therefore greatly to be desired, not only because of the part it has played in the history of the country, but on account of its relationship to Protestantism. For such an investigation the sepulchral monuments supply the most valuable materials now extant, and it is gratifying to find that the experts of the National Museum at Sarajevo have already partly executed this most promising work. But, at this time of day, before the Bogomiles can be portrayed in their true colours, every available source of information has to be put under requisition.

[A reviewer of the first edition of this work¹ makes the following criticism on my concluding remarks on the Bogomiles :—

The newest matter in the work concerns the remains, by no means destitute of art interest, of that curious band of heretics, the Bogomils. Considering that these persons, an account of whose doctrine is here given, are generally called "Devil Worshipers," it is a little startling to find the author telling us of their close "relationship to Protestantism," and speaking of them as precursors of the Reformation. The author seems, perhaps, hardly aware of the attraction which Satanic heresy has always had for the Slav mind.

The special object which I had in view was to describe the unique grave-monuments, generally assigned to the Bogomiles, from the archæological standpoint. In doing so, I took advantage of the recent researches of Director Hörmann and Dr Truhelka to point out that the inscriptions on these monuments, so far as they have been transcribed and translated, do not bear out the opinion that the Bogomiles were such wicked people as they are generally represented to be. Moreover, there are critics who maintain that the two principal features of their creed were a strong dislike to the growing ceremonials of the Church and a preference for the simpler form of worship of the early founders of Christianity. If these premises were correct, I argued that the despised Bogomiles must be regarded as the precursors of the Reformation. I considered, however, that the subject was worthy of further investigation,

¹ Athenæum, December 25, 1895.

and urged competent scholars to look into the historical aspect of the matter. By the adroit way in which my reviewer introduces the word *close* to qualify "relationship to Protestantism" he has so far misrepresented both my statement and argument.

The question here raised is one of considerable importance both to the Christian Church and to the people of these regions. It has been insinuated in various quarters that the Christian persecutors of the Bogomiles depicted their heresy as far more heinous than it was in reality, in order to screen and justify the severity of the measures taken against them. But this phase of the controversy, being outside the sphere of archæology, I leave to the consideration of those competent to deal with it, and shall here confine myself to the evidence derived from the inscriptions.

Since the publication of my book, another article by Dr Truhelka on "Altbosnische Inschriften"¹ has appeared, with the result that out of several hundreds of inscriptions of the period now brought to light, not one betrays the slightest taint of devil-worship, or of any doctrine that would not be tolerated in Calvinistic Scotland. Many of them, indeed, have the very orthodox heading—"In the name of the Father, the Son, and the Holy Ghost" (see quotation on p. 378).

Dr Truhelka observes that there are few people who pay more attention to the outward symbols of their religious traditions than the Bosniacs of the present day. Morning and evening they cross themselves with

¹ W. Mitt., vol. v. pp. 276-303.

unfailing regularity, and even in their convivial social gatherings they never forget, when the wine-cup goes round, to make the sign of the cross. It would be strange, therefore, if they had formerly such an antipathy to the cross as they are represented in the Church annals to have had, that they should have so quickly forgotten that tradition. Anyhow, so far as the inscriptions on their gravestones bear upon the point at issue, their sepulchral rites did not vary from those of the Catholic and Greek orthodox Christians; and no classification of the monuments based on different religious practices or creeds is now possible.

I have already observed that the figure representations on the gravestones generally depict the bright and gay scenes of life, and never anything suggestive of the terrors of death. So likewise in these inscriptions we find neither gloominess, nor complaints, nor wailings for the departed. Indeed, death was looked upon as a welcome change through which one had to pass in order to come to a better state of existence. One gravestone had the following inscription: "Ich würde erlöst, als ich mich auf meinem Erbgute (zur ruhe) legte." It seems to me impossible to reconcile such inscriptions with the vague and contradictory reports current about the Bogomiles and their heresies. On consulting an encyclopædia article on the subject, I find the following given as the special doctrine they were said to hold—viz., "that the body, upon its separation by death, returned to the malignant mass of matter, without either the prospect or the possibility of a future res-

urrection to life and felicity." How little even their persecutors seemed to know of their real doctrines may be gathered from the following remarks by Dr Truhelka :—

But we possess no irrefutable proof that the Bogomiles held the sign of the cross in abhorrence, and that their dogma had expressly forbidden it to them. Indeed, the Inquisitors themselves—be they of the Catholic or Greek-oriental Church—who conducted the proceedings against the Bogomiles could not truly define their creed (*bogumilische Glaubensbekenntniss*), and they imputed to them now this, now that, heresy. Yes, they knew not even the right name of the sect; for these heretics are sometimes described as Patarenes, and at other times as Katharists, Manichæans, and only in the rarest instances under their proper name—Bogomiles. We know only for certain that the Bogomiles did not practice the ceremonials of Christianity; but for the fact that they regarded the symbol of the cross as sinful we have only the one-sided evidence of their persecutors (*Inquisitoren*).¹

General Remarks on the Administration of Bosnia-Herzegovina in 1894.

In the course of the preceding rambles and discussions I have endeavoured to show that behind the phenomena of everyday occurrence, which excite so much interest in the minds of visitors to the beautiful lands of Bosnia and Herzegovina, there lies an unusually rich substratum of scientific materials which is only now becoming known to scholars in Western Europe.

¹ W. Mitt., vol. iii. p. 420.

Among the diversified remains of past civilisations here strewn along the highways and byways, I have treated more especially of those which come under the category of prehistoric archæology. But my humble efforts by no means exhaust this department of the subject. Their main object will, however, be accomplished if they succeed in directing general attention to so prolific a field of research. For this purpose my sketches have been discursive rather than exhaustive; and in keeping with this character I will now briefly refer to a few of the more conspicuous improvements which have taken place in the social condition of the people, and in the development of the resources of these provinces, since the advent of the present Administration.

Notwithstanding the clause in the Berlin Treaty which assigned to Austria-Hungary the government of Bosnia and Herzegovina, the actual occupation of the provinces was only effected after a short but sanguinary war, in which the imperial army lost 5000 men and 179 officers. For the first four years the efforts of the victors to govern the provinces by a purely military administration proved not only a failure, but actually culminated in 1882 in an abortive rebellion. It was in these circumstances that Herr von Kállay was called to the helm of affairs, or rather to reconstruct a new ship of State from the old wreck. Coming as the representative of an alien Government whose prestige in pacification had already been tarnished, and secretly opposed by three-fourths of the people—for among the ranks of the insurgents were to be found not only the Moham-

medans, but also the Orthodox Christians and the Spanish Jews—Herr von Kállay had before him a task which most men would have regarded as wellnigh hopeless. But the very difficulty of the problem gave the statesman his opportunity. With powers practically unlimited, and the strong arm of the soldier to enforce them if necessary, Herr von Kállay commenced the work of reconstruction by gradually substituting local self-government for the haughty military system which was hitherto in force. For the purpose of acquiring practical knowledge of the actual state of the country, he first of all made a tour through the provinces. He heard the grievances of the people, and promised redress of obvious abuses. By thus reassuring their minds he secured from the very start an attitude of expectancy. Meantime he was cogitating over the principles of an administrative code of laws which would bring self-government into harmony with the military demands of the Army of Occupation. It is on this point that the constructive genius and admirable tact of Herr von Kállay have found an appropriate outlet. To describe at length the initiatory and successive steps by which so many clashing interests and heterogeneous elements were reconciled is, however, beyond my limits. Suffice it to say that Sarajevo is at present governed by a body of twenty-four magistrates, selected from the different religious creeds in proportion to their numerical strength. Thus, twelve are Mohammedans, six Orthodox, three Catholic, and three Jews. The mayor and one-third of the magistrates are nominated by Govern-

ment, and the other two-thirds elected by the inhabitants qualified to vote. A Government Commissioner assists the mayor in the discharge of his actual duties. At the present time the military commander of Bosnia-Herzegovina, Baron Appel, and his civil adlatus, Baron Kutschera, control the political, financial, and judicial departments.

To specify toleration of religion, protection of legal rights in property, equality of justice to all classes, and the levying of taxes according to a fixed tariff—all of which are among the general principles of the present Administration—is to enumerate the essential elements of personal freedom and liberty of conscience. Through their enforcement no one has been mulcted of his legal rights; and no institution, nor even a church, has been deprived of its private endowments. Only one ancient custom, which probably dates from prehistoric times, has compulsorily disappeared from the land—viz., that of carrying arms. The long guns, ornamental pistols, and damaskeened blades which formerly formed part of every man's personal attire, are now things of the past.

But the good offices of Herr von Kállay did not stop at supplying the fundamental principles of an enlightened constitution. A special feature of the new policy was to foster trade and commerce, especially by the construction of roads, railways, and telegraphs. Already some 3000 miles of road and 500 miles of railway traverse the land. A line of railway joins the Adriatic with the Danube, and a second is

in course of construction. Native industries, such as the art of damaskeening, the manufacture of oriental carpets, and the weaving of fine cloths and silks, all of which were fast falling into decay, have been revived, and are now kept in a state of efficiency by the establishment of technical schools of instruction. The long-neglected mines of coal, iron, salt, &c., are again worked to advantage in consequence of the railway facilities for transporting their products. The growing of tobacco is also in a flourishing condition. The Government Tobacco-factory at Sarajevo, which is one of the sights of the town, now gives employment to several hundred girls in the making of cigars and cigarettes. The environs of the sulphurous spring at Ilidže are converted into a modern watering-place, which, for comfort, elegance, and general attractiveness, vies with the best establishments of the kind in Europe. Besides giving assistance to various denominational schools, Government has erected a gymnasium and a fine hospital in the capital, as well as some 300 or 400 public schools in various places throughout the provinces. Nor is pure science forgotten. At Sarajevo there is a fully-equipped National Museum with a permanent staff of experts, who perambulate the country in search of materials to illustrate its botany, geology, archæology, and history.

There are many other ways in which the welfare of the community is looked after. A system of lending money for improvements on land, at a low rate of interest, is now in operation; and prevents the agri-

cultural peasants from falling into the hands of greedy usurers. There is also a judicious land-purchase scheme which enables the *kmets* or tenants to purchase their holdings, and I understand it has been largely taken advantage of. For the convenience of travellers, hotels—under Government surveillance—have been erected in several localities, where visitors may be assured of receiving all necessary comforts at moderate charges. Such hotels are at present established at Doboj, Jajce, Mostar, Jablanica, and Ilidže.

A sweeping reformation of this magnitude, on the lines of modern civilisation, could hardly have been effected without causing a considerable amount of dislocation of the non-progressive methods so long stereotyped in Turkish lands. If, for this reason, some minor industries have suffered, others have enormously increased. Although the yearly budget, now amounting to nearly a million sterling, does little more than make both ends meet, without counting the cost of the Army of Occupation, the suzerain Empire has profited in another way—viz., by supplanting the other European nations in the import of manufactured goods and other articles of consumption to this part of the world. England no longer finds a direct market for her woollen stuffs at Sarajevo, nor France for her silks and wines. Everything now comes from Austro-Hungarian sources.

In carrying out these important alterations throughout the provinces of Bosnia and Herzegovina, Herr von Kállay has had, or rather now has, the hearty co-opera-

tion of all classes. The old spirit of opposition has entirely vanished, and his former enemies are now his warmest admirers. Evidently the principles of law and order have taken a deep hold on the people of this corner of the Balkan peninsula. Foreigners who find their way into the country regard these administrative achievements with astonishment. The pliability of the people to fall in with the methods of Western civilisation in matters of trade and business, while still retaining the purest forms of their hereditary courts of justice, and the complete change of disposition effected in the minds of all classes of the community, can only be compared to a transformation scene in Fairy-land. Nor can this analogy be regarded as far-fetched when applied to a country which, but yesterday was steeped in barbarism, and to-day is a model object-lesson to the civilised world.

CHAPTER XI.

THE CIVILISATIONS OF HALLSTATT AND LA TÈNE.

DURING the Homeric Age iron was known in Greece as a rare and expensive commodity, but in the time of Hesiod it came largely into general use, as we find this author assigning to Hercules, besides armour of gold and greaves of bronze, a helmet of steel and a sword of iron; and to Saturn a steel reaping-hook. As the knowledge of the new metal slowly spread to the outlying districts in the north and west of Europe, partly through commerce and partly through immigrants and warlike expeditions, it is but natural to expect that antiquarian remains of the period, found in Central Europe, would disclose the metallurgical changes which had been effected in consequence of the substitution of iron for bronze in their manufacture. On this score archæologists have not been disappointed, especially as regards cutting implements and weapons. Two localities, in particular, have been discovered which have yielded relics so instructive and characteristic of this transition-period that their names are now universally used, not

only as generic expressions for the civilisations they respectively represent, but also as standards of comparison for contemporary antiquities. These are the cemetery of Hallstatt in Austria and the "Oppidum La Tène" in Switzerland. No antiquary who aspires to a knowledge of the salient features of the proto-historic civilisation of Europe can afford to ignore the culture elements disclosed by the antiquities found on these two localities. Similar objects, due to the same primary influences, had a wide area of distribution, extending broadly from North Italy and the Balkan peninsula to the British Isles; so that archæologists, who wish to study the development of the Iron Age anywhere within these limits, have to drink from the same fountain-head. I propose, therefore, to devote this chapter to a short sketch of the characteristic remains found on these two stations, noticing at the same time a few of the analogous remains found elsewhere by way of defining their respective areas of distribution.

The Hallstatt Civilisation.

The ancient necropolis, known as Hallstatt, lies in a narrow glen in the Noric Alps, about an hour's walk from the town of Hallstatt situated on the lake of the same name. The principal portion of the cemetery extended from the bare slope, seen to the left on Plate XXXIII., to the wood behind the house in the foreground. Discovered in 1846, and systematically explored for several years under the superintendence of

Bergmeister G. Ramsauer, the results were published by Baron von Sacken in 1868, in a quarto volume with twenty-six plates of illustrations.¹

One of the peculiarities of this cemetery was that it contained burials by inhumation and incineration indiscriminately dispersed over the entire sepulchral area, both, however, belonging to the same period, as was clearly proved from the perfect similarity of their respective grave-goods. The graves were thickly placed over an irregular area, some 200 yards in length and about half that in breadth, but there were no indications above ground to mark their position. They were not arranged in any order, and their depth varied within the limits of $1\frac{1}{2}$ to 5 feet—a disproportion partly accounted for by the sloping nature of the surface, which caused a considerable rain-wash of the soil to the lower levels.

Out of 993 tombs described in v. Sacken's work, 525 contained simple interments; 455 had incinerated human remains; and in 13 the bodies had only been partially burnt before being interred. The inhumed bodies lay, generally, from east to west, having the face towards sunrise with the head occasionally resting on a stone. At other times the body lay on a prepared bed, or coarse casing, of hardened clay. In two instances traces of a wooden coffin were observed. Sometimes two or more skeletons were found in the same grave, while, at other times, some portion of the skeleton was

¹ Das Grabfeld von Hallstatt in Oberösterreich und dessen Alterthümer. Wien, 1868.



PLATE XXXIII.

VIEW OF THE HALLSTATT CEMETERY (see p. 399).

awaiting. The skeletons were not so scientifically examined as could be desired, but, according to Dr Hoernes,¹ they belonged to a well-developed dolichocephalic race, of medium height (5 feet 6 to 8 inches), with a prominent occiput, long and slightly prognathic face, and a straight or gently receding forehead. The ashes and charred bones were carefully collected and deposited in the natural soil, sometimes laid over a flat stone, and sometimes in a roughly burnt trough of clay. Only twice were burnt bones found in a bronze vase, and once in a clay urn. When the cremated remains had been deposited the grave-goods were placed near them, after which the coarser pieces of charcoal were heaped over the whole.

An analysis of the contents of the graves gave the following results. The 538 tombs, after inhumation, contained: *Bronze*—18 objects of armour, 1543 articles of toilet, 57 utensils, and 31 vases; *Iron*—165 objects of armour and 42 utensils; 6 articles of gold, 171 of amber, and 41 of glass; 342 clay vessels; and 61 diverse objects (spindle-whorls, sharpening-stones, &c.).

Similarly classified, the relics in the 455 tombs after incineration were as follows: *Bronze*—91 objects of armour, 1735 of toilet, 55 utensils, and 179 vases; *Iron*—348 objects of armour and 43 utensils; 59 articles of gold, 106 of amber, and 35 of glass; 902 clay vessels; and 102 diverse objects.

From these statistics it would appear that the burials after cremation were richer in articles of luxury—such

¹ Revue d'Anthropologie, 1889, p. 330.

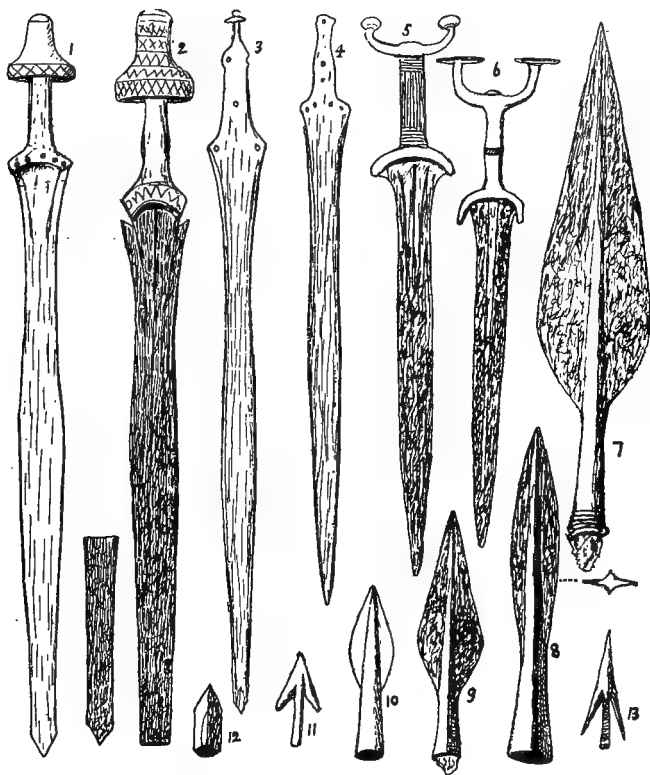
as bronze vases and fibulæ, beads of glass, gold cloth-stuffs, &c.—with the exception of objects of amber, which were more abundant with inhumed bodies.

Baron von Sacken thus classifies the grave-goods:—

1. *Armour*.—Swords, daggers, lances, arrow-points, battle-axes (some small axes were supposed to be of symbolic use), helmets, and shields.
2. *Ornaments and Dress*.—Girdles, pendants, fibulæ, clasps, pins, bracelets, finger-rings, ear-rings, hair-rings, spirals, chains, beads of gold, amber, and bronze, buttons, various ornamented mountings, amulets, and symbols.
3. *Utensils*.—Knives, files, anvils, forceps, fish-hooks, needles, bodkins, nails, whetstones, and polishing stones.
4. *Vessels*.—Caldrons, urns, cups, and ladles of bronze; pots, cups, and plates of earthenware, and a few vessels of glass.
5. *Diverse Objects*.—Worked stones, clay discs, lumps of bronze and slag, shells, bones of animals, &c.

Many of the weapons though made of iron retained Bronze Age forms, as may be seen from the outlines of swords and spears on Fig. 145. All the arrow-points were made of bronze, most of them with wings and a few triangularly-shaped (Fig. 145, Nos. 11-13). Arms of defence, such as helmets and shields, were very rare, only two of the former, one with a double crest and the other plain, having been found. Of shields there were only a few fragments in the form of some conical objects supposed to be bosses. The swords and daggers

had sheaths of beaten bronzé, or of wood bound with bronze bands, and they were often more or less ornamented. Some of the iron swords were of a novel and remarkable character (Fig. 145, No. 2). Judging from



(Nos. 1 to 4 = $\frac{1}{3}$; 5 and 6 = $\frac{1}{8}$; 7 to 13 = $\frac{1}{4}$.)

Fig. 145.—WEAPONS OF BRONZE AND IRON, HALLSTATT.

the more perfect specimens, the blade of this weapon was double-edged, nearly three feet in length, almost of uniform breadth throughout its whole length, and

ended abruptly in a point with two short slanting edges. It was riveted to a handle of bone encrusted with ivory or amber, and terminated in a gilded pomel of large dimensions (Plate XXXIV., Figs. 21 and 22). Of nine specimens, eight were found in graves containing cremated bodies, and associated with them were, almost invariably, one or more bronze vases. Other swords, some of iron and some of bronze, especially the latter, were not unlike the leaf-shaped bronze blades so common in the British Isles at the later end of the Bronze Age (Fig. 145, No. 4). There were also iron daggers, with handles of bronze terminating at the hilt in two horn-like projections (Fig. 145, Nos. 5 and 6); and knife-like blades of unusual size, like a butcher's cleaver (Plate XXXIV., Fig. 3). The spear-heads were all socketed, and mostly made of iron (No. 10 on the same plate is of bronze, and Nos. 7, 8, and 9 are of iron). Like the swords, they show a combination of Bronze Age types with a few new patterns superadded, some of the latter closely resembling the forms prevalent in La Tène, as, for example, No. 7.

The geographical distribution of the great iron swords of Hallstatt is noteworthy. They seem to have spread in a north-western direction along the Rhine route, reaching as far as France and Hanover. Characteristic examples may be seen in the Museums of Munich, Darmstadt, Wiesbaden, Mannheim, Mayence, and Hanover. According to MM. Bertrand and Reinach¹ over two dozen have been discovered in various parts of France,

¹ Les Celtes dans les Vallées du Pô et du Danube, p. 149.

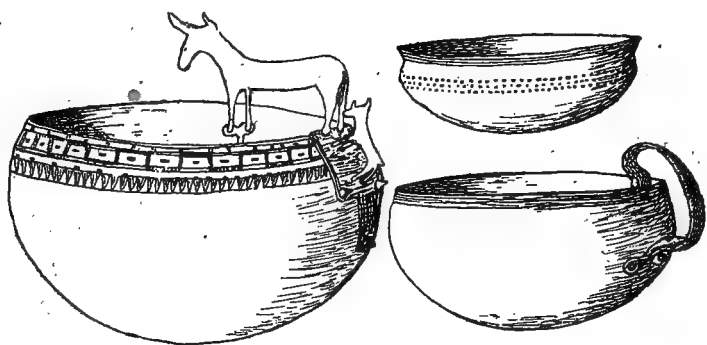
chiefly in the Gaulish tumuli. They extended eastwards into Bosnia (Fig. 34). But no specimen has yet been found in Italy, North Germany, or the British Isles. Hence it has been surmised that this sword had a local origin among the Celtic races. But the weapon was by no means common, either in Hallstatt or elsewhere; and it is therefore regarded as a special arm of distinction for men of position among the people who practised incineration of the dead. On the other hand, the lances, spears, and battle-axes were, for the most part, associated with inhumed bodies, a statement which suggests that it was the common soldiers who disposed of their dead after the rites of inhumation.

Among articles of dress fibulæ were conspicuous both as regards number and variety of form (Plate XXXIV., Nos. 11-14). Some were adorned with amber beads, and others had attached to them, by chains, a number of pendants in the shape of discs, crosses, wheels, miniature axes, and various kinds of animals, often reminding one of ducks or swans. The spiral fibula (like Fig. 43), with two or four discs, goes under the name of the "Hallstatt fibula," as it is seldom met with in North Italy, although common south of the Apennines. Bracelets—solid, hollow, or in bands with or without knobs (Plate XXXIV., No. 20)—were common. One found in a Yorkshire barrow at Cowlam, and figured by Canon Greenwell,¹ is almost a facsimile of some of the specimens at Hallstatt.

But perhaps the most remarkable objects were the

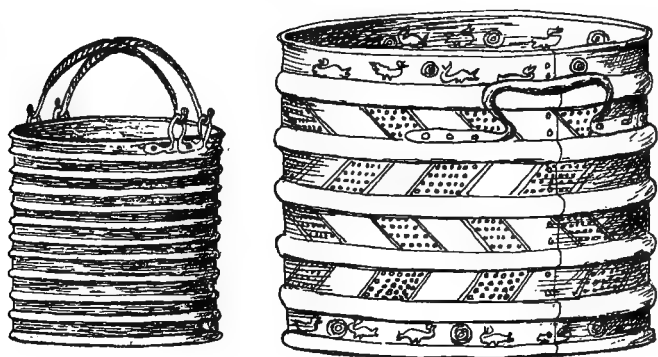
¹ British Barrows, fig. 113.

mountings of some girdle-bands and a number of large vessels (Figs. 146-149) made of bronze, which were



Figs. 146, 147.—BRONZE VASES, HALLSTATT (½).

more or less adorned with geometrical or animal figures, either engraved or in *repoussé* work, involving a great



Figs. 148, 149.—BRONZE SITULÆ, HALLSTATT (½).

variety of art elements—points, zigzag lines, concentric circles, spirals, triangles, crosses, stars, wheels, as well as the forms of plants, beasts, and human beings.

Some of the vessels had round bottoms (Figs. 146 and 147), and others were like pails or *situlae*, either cylindrical or bulging upwards and again contracting a little towards the mouth (Plate XXXIV., No. 18). They had generally one or two movable handles attached at the top (Fig. 148) like an ordinary water-pitcher, or



Fig. 150.—COVER OF A SITULA, HALLSTATT ($\frac{1}{3}$).

small handles fixed to the sides of the vessel (Fig. 149). The larger specimens were made of beaten bronze riveted together, and, when found, they were either empty or contained only the bones of animals. The lid of one of the *situlae* (Fig. 150) was ornamented with a group of fantastic animals in a style of art which

will be discussed later on. The cylindrical *situlae* or cists—*ciste a cordoni* of Italian archæologists—have a series of parallel ridges or cordons running round the body (Figs. 148 and 149). They were used in some places as cinerary urns, at least one of the specimens found in the Certosa cemetery in Bologna is recorded as containing burnt bones and a silver fibula. M. Reinach¹ has done good service to archæology by tabulating the localities in which all known specimens have been discovered. According to his list, 47 have been found in Italy, 33 in Austria-Hungary, 17 in Germany, 5 in France, 1 in Switzerland, and 1 in Belgium. Of these 21 came from the Bologna district; but on the other hand, a hoard of not less than 14 was found at a place called Kurd, in Hungary—a fact which has been used as an argument against their Italian origin. Six are from Hallstatt, and the same number from S. Lucia.² M. Reinach has also pointed out a remarkable parallelism in their distribution with that of the razors. The razors, however, appear to me to have been a little earlier than the cordoned cists, as the former are among the relics of the pre-Etruscan cemetery of Villanova, but not the latter.

Twenty-two miscellaneous objects from Hallstatt are illustrated on Plate XXXIV., the originals of which are in the Museums of Linz and Vienna. Of the implements, Nos. 4, 6, and 7 are of iron, and 5, 8, 9, 10, 15, 16, and 17 of bronze. Some of these (Nos. 5, 6,

¹ *Op. cit.*, p. 213.

² See Scavi nella Necropoli di S. Lucia, Plate II.

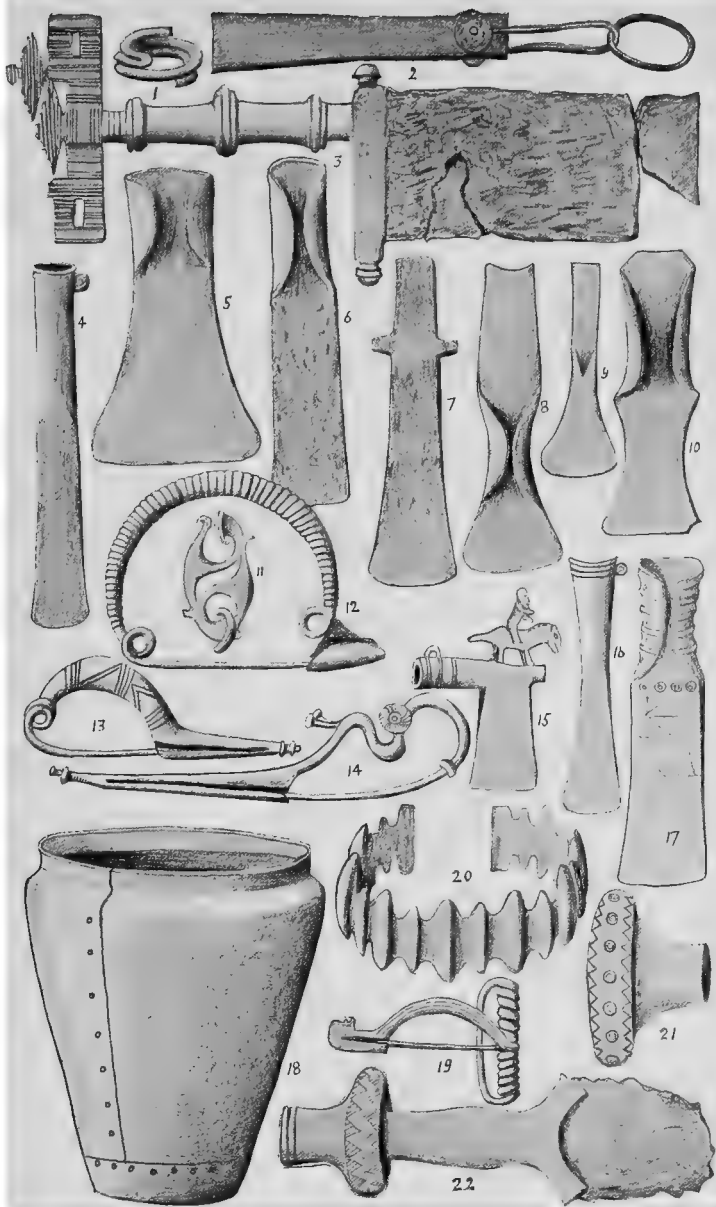


PLATE XXXIV.

(Nos. 2, 4 to 10, 16, 17, 21, 22 = $\frac{1}{4}$; 15 = $\frac{1}{8}$; 18 = $\frac{1}{16}$; the rest = $\frac{1}{2}$ real size.)

OBJECTS FROM HALLSTATT (see [p. 408]).

and 7) are new types, unlike any to be found in the Bronze Age; but they anticipate, as it were, forms which became afterwards common at La Tène. The others, especially the socketed celts, have deviated little from those prevalent in the Bronze Age. Nos. 3 and

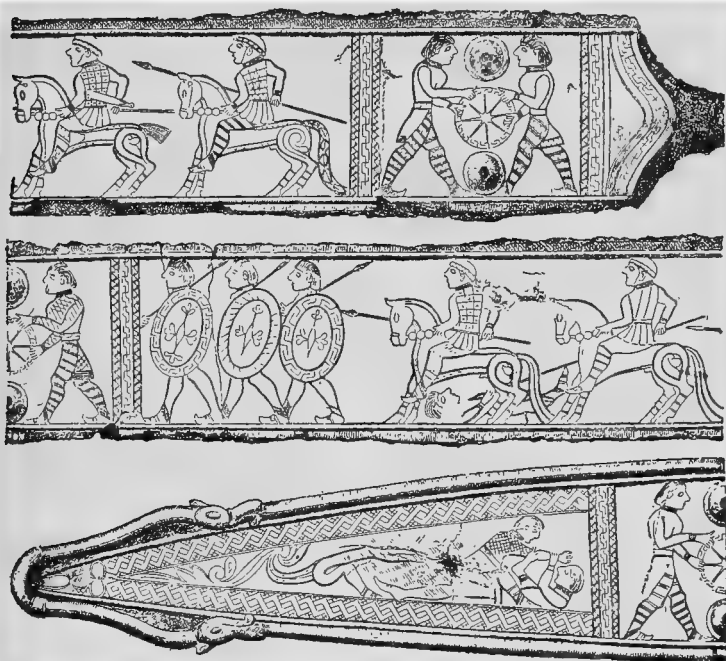


Fig. 151.—BRONZE SWORD-SHEATH, HALLSTATT. (Length $25\frac{1}{2}$ inches.)

22 have handles of bronze and blades of iron. The fibulæ (Nos. 11-14), bracelet (No. 20), and finger-ring (No. 1), are all of bronze.

Fig. 151 represents an exceptionally fine scabbard of bronze, found along with an iron helmet in a grave at

Hallstatt subsequent to the investigations described by v. Sacken. It is decorated with figure-groups illustrating incidents in military life, like those on a girdle-band from Watsch (Fig. 152), and terminates at the butt-end in a curve well known to be a characteristic feature in the sword-sheaths of La Tène (see Figs. 155 and 156).

It may be noted as a point of some significance that neither silver nor lead has been found in Hallstatt. Their absence, together with that of money, has been used to support the opinion that the cemetery was dis-

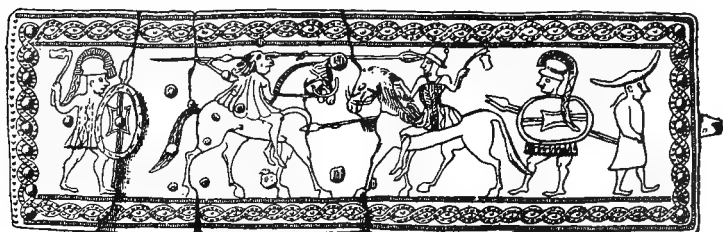


Fig. 152.—GIRDLE-BAND FROM WATSCH ($\frac{1}{3}$).

continued before these metals came into general use about the beginning of the fourth century B.C.

Baron von Sacken¹ assigned the Hallstatt cemetery to the second half of the millennium immediately preceding the Christian Era, and thought that it might be in continuous use till the advent of the Romans into that part of Europe. But according to other writers this range ought to be extended further back by several centuries, even to 1000 B.C.² Owing to commercial

¹ *Op. cit.*, p. 145.

² See Hoernes, *Revue Arch.*, 1889, p. 334.

currents from Eastern lands, especially by way of the Adriatic, and also, no doubt, to changes initiated by native skill, we might expect a considerable variation in the *technique* of the Hallstatt relics, even on v. Sacken's hypothesis of the more limited duration of the cemetery. The collection as a whole is thus a mere jumbling together of an assortment of objects, not only influenced by a rapidly progressing civilisation, but also by a continuous importation of new materials, and hence the difficulty of classifying them into a more precise division than earlier and later.

Since the publication of v. Sacken's great work further excavations, comprising some fifty graves, have been made at Hallstatt, the relics from which were sent to Vienna, where they are now admirably arranged in the Natural History Museum. Also, in the town of Linz, there are upwards of 600 objects from 130 graves (as well as a few from the salt mines), the result of systematic excavations conducted on various occasions by the authorities of the Francisco-Carolinum Museum. Moreover, some remains of the wooden huts in which the salt-miners lived have been discovered in the neighbourhood, and they also have yielded a few relics of the same character as those from the cemetery. There can be little doubt, therefore, that the cemetery belonged to the community which the salt industry in the vicinity had drawn to this wild spot. That the mines were worked during the early Iron Age, if not, indeed, still earlier, is proved by the fact that among the relics from the salt-mines at Hallein are wooden handles

similar to those used in the Bronze Age.¹ I do not, however, suppose that an analysis of these additional discoveries would alter the general character of the Hallstatt collection as already briefly described on the basis of v. Sacken's work. The only remark I have to make on this point is, that they furnish some strong evidence in support of the view that the cemetery was in use as late as the La Tène period, about two or three centuries B.C. For references to the sources of publication of these later discoveries I refer readers to an interesting brochure² by A. B. Meyer of Dresden.

Various hypotheses have been advanced to account for the supposed duality of race disclosed by the sepulchral phenomena at Hallstatt. The opinion advocated by MM. Bertrand and Reinach³—viz., that the original people were of the Celtic race (Aryans), who in accordance with their inherited traditions practised the rites of cremation—seems to me to be both consistent with historical gleanings and well supported by archaeological evidence. At first these proto-Celts prosecuted pastoral and agricultural pursuits exclusively, but after the salt-mines in the neighbourhood were opened up they occupied themselves with mining, which brought great opulence to the district. The exportation of salt to foreign markets led to a steady trade between them and the people of the Baltic shores on the one side, and those of the Mediterranean on the

¹ See *Lake-Dwellings of Europe*, p. 502.

² *Das Gräberfeld von Hallstatt*, 1885.

³ *Op. cit.*, p. 127 *et seq.*

other, receiving in return, from the former the highly prized amber, and from the latter objects of luxury in bronze, glass, ivory, and gold. That they cultivated the land, reared herds of cattle, and worked in metals, is proved by the contents of the tombs, among which were bones of domestic animals, agricultural implements, and slag, together with other remains of casting. But, if the cremationists at Hallstatt were of the Celtic race, who, it may be asked, were the people who inhumed their dead and lived with the former on, apparently, such friendly terms? For a plausible answer to this question we must look a little afield.

The Celto-Umbrians of North Italy, as proved by the discoveries at Villanova, Bologna, Este, Sesto-Calende, Golasecca, &c., disposed of their dead after the rites of incineration, and few or no inhumation burials took place among them until they came under the dominion of the Etruscans, seven or eight centuries B.C. Zannoni's excavations in the cemetery of Certosa¹ in Bologna revealed a mixture of the two forms of burial, one (incineration) indicating the continuation of the old Celto-Umbrian custom, and the other (inhumation) that imported by the Etruscans, who, as is well known, buried their dead in Etruria in large, generally rock-cut, chambers. But in addition to these well-defined Etruscan tombs there were others, both here and in other localities near the old Felsinian city, which contained inhumed bodies associated with grave-goods of a totally different character. Sepulchral remains similar

¹ Gli Scavi della Certosa di Bologna, 1876-1884.

to the latter were found in a still later cemetery of the Etruscans at Marzabotto, a few miles from Bologna. These strange remains were at last (1871) recognised by MM. Desor and G. de Mortillet as the graves of the famous Gaulish warriors who, during the third and fourth centuries, overran the Circumpadane lands and held them more or less till they were conquered by the Romans (196 B.C.).¹

A similar succession of civilisations has been recognised at a number of other localities in the valley of the Po. At Este, the ancient Ateste, several cemeteries of pre-Roman times, embracing the interval between the commencement of the Iron Age and the period of La Tène, have been described by Professor A. Prosdocimi,² who classifies their relics into four divisions or epochs. The first two (first and second Euganean Epochs), which correspond with the cemeteries at Villanova and the earlier tombs of Benacci (Bologna), contained incinerated burials exclusively. The third (Euganeo-Etruscan Epoch) may be paralleled with the Certosa cemetery, both of which yielded *situlae* and girdle-bands ornamented with life-scenes in *repoussé*, vases with pictures after the Greek style in black on a reddish ground, or *vice versa*, and a great variety of fibulae, including the "Certosa fibula," which has been dated to the end of the fifth century B.C. The fourth (Euganeo-Roman Epoch) disclosed unmistakable relics of La Tène civilisation. Above these were sepultures with pure Roman

¹ Congrès International d'Anth. et d'Arch., V. Session, p. 278.

² Notizie degli Scavi, 1882-1883.

remains.¹ This pre-Etruscan, Celto-Umbrian, or Old Italian, civilisation, with its characteristic custom of incineration of the dead, has been traced northwards to the Julian Alps and the shore-lands around the head of the Adriatic;² and M. Bertrand extends it to the south of the Apennines, where, as at Poggio-Renzo, he shows that there were pre-Etruscan burials, containing urns, precisely similar to those at Villanova.³

The question to be determined, then, is, whether the custom of burial by inhumation was introduced into Hallstatt through the Etruscans or through the trans-alpine Celts, some of whom, at least, practised this mode of interment. The first alternative, at one time strongly advocated by those who regarded the Rhetians as the progenitors of the Etruscans, is now generally abandoned in favour of the second. Hence, the most probable explanation of the sepulchral phenomena at Hallstatt is, that those who practised inhumation were auxiliary, or mercenary, soldiers hired from the forefathers of the La Tène Celts by the wealthy owners of the salt mines, either to keep order among the miners, or to work the mines. How they came to practise the rites of inhumation is another problem, which we need not now stop to discuss. Probably an explanation may be found in the fact that the pre-Celtic races of Europe, such as the dolmen builders, were inhumationists.

¹ For the literature and illustrations of the characteristic relics of all these periods I would refer my readers to 'La Civilisation Primitive en Italie,' 1895, by Professor Montelius of Stockholm.

² Orsi—*Bulletino di Palet. Ital.*, 1885.

³ *Archéologie Celtique et Gauloise*, 2nd ed., p. 229 *et seq.*

Sepulchral remains more or less analogous to those at Hallstatt have been recorded from various parts throughout Central Europe. Besides those in the Po valley others have been found in the Istrian peninsula (Vermo, Puzzugghi, &c.);¹ in the Julian Alps (S. Lucia);² in the vicinity of Laibach (Watsch, St Margarethen, &c.);³ in Carinthia (Frögg);⁴ in the Tyrol (Matrei, Moritzing, &c.);⁵ Styria (Kuffarn),⁶ &c.

Sporadic finds have been discovered in Moravia, South Germany, Switzerland, the Rhine district, France as far as the Pyrenees (Avezat-Prat), and the British Isles. Although the remains found in the British Isles—as, for example, the urn-field at Aylesford, described by Mr Arthur J. Evans⁷—belong to a later date, the urns and bronze vessels disclose influences which can be traced to North Italy. To the north of the Danube the Hallstatt civilisation appears to be of a later date than in more southern lands, but its remains are occasionally well developed, as in the Byciskalahöhle in Moravia. They have been discovered in Bohemia, Silesia, Poland, and Hungary; and we have already sufficiently discussed their presence in Bosnia-Herzegovina and Dalmatia.

¹ *Bullet. di Palet. Ital.* Anno xi.

² *Scavi nella Necropoli di S. Lucia* (1882-1892). Trieste, 1893.

³ *Denkschr. math-Naturw. Cl. der Akad. der Wissensch.*, xlvii.; *Mitt. der Anth. Gesell. Wien*, 1884.

⁴ For literature see '*Proc. Soc. Antiq. Scot.*' vol. xxiii. p. 245.

⁵ For literature see '*Urgeschichte des Bildenden Kunst in Europa*,' pp. 664, 665.

⁶ *Mitt. der Anth. Gesell. Wien*, 1891.

⁷ *Archæologia*, vol. 52.



SITULA FROM WATSCH (about $\frac{1}{2}$).

PLATE XXXV.



PLATE XXXVI.

DETAILED ORNAMENTATION ON THE WATSCH SITULA (4).

Among the more remarkable objects which betray a foreign origin are some eight or nine bronze *situlæ* (Plates XXXV.-XXXVII.), and a few girdle-bands (Figs. 152, 153), ornamented with pictorial representations of scenes of actual life of a highly realistic character. Objects of this description have been recorded from Klein-Glein and Kuffarn (Styria); Matrei and Moritzing (Tyrol); Hallstatt; Watsch; Caporetto (Istria); Trezzo and Sesto-Calende (near Milan); La Certosa; Este, &c.¹ The *situlæ* are supposed to have originated in the lower

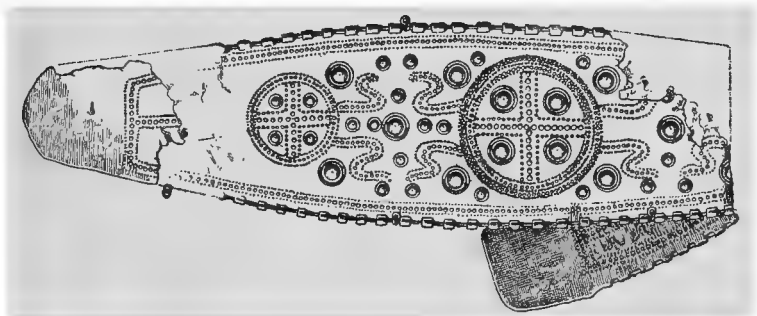


Fig. 153.—GIRDLE-BAND FROM BENACCI, BOLOGNA.

portion of the Po valley—two having been found in the Certosa cemetery and three at Este—and to have spread westwards by the usual routes. They do not, however, appear to have reached as far as France and North Germany, so that their area of distribution was more contracted than that of the cordoned cists.

From the accompanying illustrations, which show the form and details of the famous Watsch *situla*, we can

¹ For the literature and a summary list of the *situlæ* see MM. Bertrand and Reinach, *op. cit.*, p. 96.

distinguish soldiers with helmets, shields, spears, and battle-axes; two stripped men wrestling over a crested helmet, doubtless the prize of the victor; men variously costumed, on horseback, in carriages, and on foot; women, draped in flowing robes, offering food and drink to seated personages, indicating probably some religious ceremony; and in the last row a procession of fantastic animals, betraying oriental influences. To compare with these I have represented on Plate XXXVII. the unrolled details of the analogous figures on one of the Certosa *situlae*, from which it will be seen how closely they resemble each other in style and workmanship. Fig. 152 shows a girdle-band, also from Watsch, adorned with warriors, two on horseback and two on foot, wearing crested helmets and contending in battle with spears and battle-axes. Compare with these the cover of a *situla* and the sword-sheath from Hallstatt (Figs. 150 and 151). The same family likeness characterises the whole series, wherever they have hitherto been found. That the figure representations are not mere products of the imagination is proved by the fact that nearly all the metallic objects depicted have actually been discovered among the relics of the Hallstatt civilisation, including the various forms of helmets—round, double or single crested, and conical—shields, battle-axes, and spears.

The burial rites in the Laibach district, though of a mixed character, were in variable proportions in different cemeteries, sometimes incineration and at other times inhumation being predominant. As a contrast to what

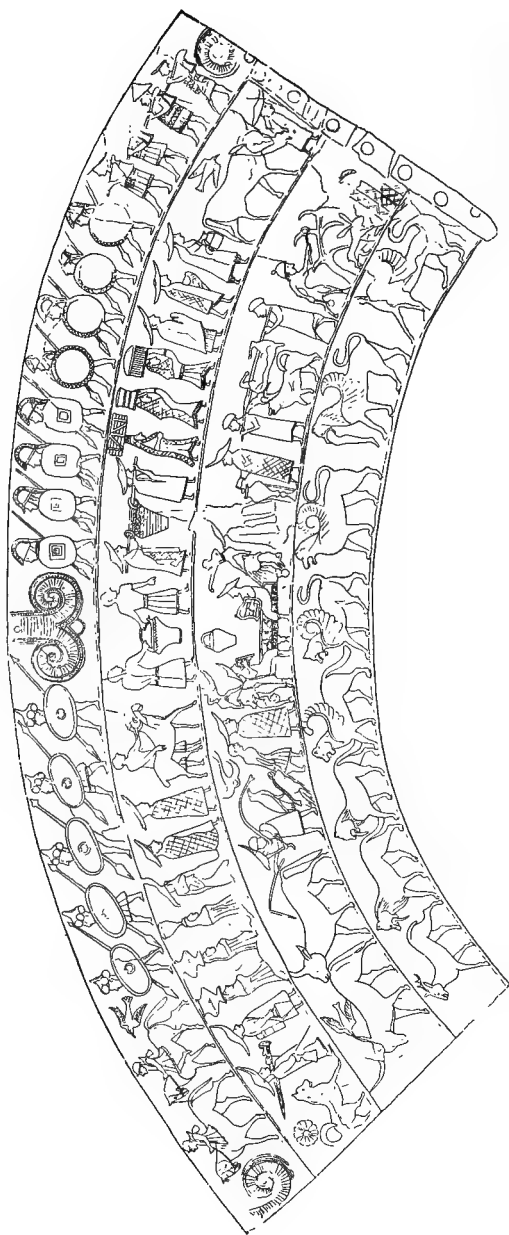


PLATE XXXVII.

DETAILED ORNAMENTATION ON THE CERTOSA SITULA (about 550).

we stated about Hallstatt, there was evidence in this locality to show that tombs after inhumation were the richer of the two. Thus at Watsch, out of 200 tombs examined, only 10 were simple interments; but the latter were richer in grave-goods, and always contained warlike weapons, while such weapons were almost entirely wanting in the tombs after incineration.¹ From this it might be inferred that as time went on the La Tène Celts became the masters instead of the servants, as in the earlier days of Hallstatt. Graves containing their characteristic swords and fibulæ are numerous in the district, and it has been observed that the former were almost invariably doubled up before being deposited.

In the cemetery of S. Lucia, near Tolmino, above the head of the Adriatic, in which incineration was almost exclusively the mode of sepulture—there being only three interments by inhumation out of 3000 tombs examined by Dr Marchesetti—the warlike element was represented by only one sword, two spears, and seven lances (all of iron). Of these the sword² is distinctly a La Tène type—thus suggesting that the peaceful ways of the people had only been disturbed in later times, probably during one of the marauding excursions of the Gauls into Italy. On the other hand, the fibulæ numbered 1629 of bronze and 108 of iron; of which 248 were of the “Certosa” type—*i.e.*, not much earlier than 400 B.C.—and three of La Tène types. Of metallic vases

¹ Hoernes—*Revue d'Anthropologie*, 1898, p. 330.

² *Op. cit.*, Plate XXVIII., fig. 6.

there were eighty of bronze and one of iron, among the former being six *ciste a cordoni*. A few of these bronze vessels were decorated with dots, circles, and perpendicular flutings, but rarely with animal figures, and all in the same style of art as the analogous objects from Hallstatt.

Another cemetery which has yielded a large assortment of objects of the Hallstatt types is that of Frögg, in Carinthia.¹ Besides the usual iron and bronze relics, the Frögg cemetery has the unique feature of containing among its grave-goods a number of objects made of lead, such as flattened figures of men—some on horseback—and of various animals, miniature waggons, &c., the whole reminding one strongly of a collection of children's toys.

Thus the wave of civilisation, to which Hallstatt has given a name, extended over a large area of Central Europe, disseminating among its various peoples new and suggestive culture elements. Among the northern Celtic races this innovation gave an enormous impetus to their warlike propensities, which now and again came to a climax by hostile movements to distant territories. In the third and fourth centuries B.C. we find that on several occasions they burst through their Alpine barriers, poured into the valley of the Po, and conquered the Etruscans who were then masters of the Circumpadane lands. These fierce invaders were equipped with weapons precisely similar to those found on the "Oppidum La Tène," the second of the two great land-

¹ See Proc. Soc. Antiq. Scot., vol. xxiii. p. 241, and Plate IV.

marks in the development of the Iron Age in Europe, and that which now falls to be described.

The La Tène Civilisation.

The celebrated lacustrine station, called La Tène, is situated at the north end of Lake Neuchâtel, close to the present artificially formed outlet of its waters to the Upper Thielle. Here is to be seen a gravelly elevation, some 200 yards long by 50 wide, which, before the "correction des eaux du Jura," formed a shallow part of the lake locally known among fishermen as La Tène (the shallows). As early as 1858 Colonel Schwab discovered that these gravels contained numerous antiquities—swords, spears, and other objects of iron—of a totally different character from those found on the *Pfahlbauten*, then so prominently before the archæological world; and of these he made a goodly collection. Subsequently Professor Desor directed his attention to the same field of research, and he also collected a large number of objects, among them being Gallic coins, and an iron sword-sheath (Fig. 154) ornamented with three fantastic animals, which at the time excited much interest among archæologists. Further discoveries in the same locality were made by M. Dardel-Thorens, who for many years, while residing in the vicinity as superintendent of the Lunatic Asylum



Fig. 154.—TOP OF AN
IRON SWORD-SHEATH,
LA TÈNE (½).

of Préfargier, devoted his spare time to the investigation of La Tène. As the relics were associated with numerous piles, local antiquaries regarded the site as that of an ordinary pile-structure, analogous to those of the Stone and Bronze Ages; and as such it has been described both by Dr Keller¹ and Professor Desor.²

Notwithstanding the facilities for investigation afforded by the lowering of the waters of the lake in 1876, which had the effect of converting the La Tène shallows into dry land, nothing further was done till 1880, when M. E. Vouga, schoolmaster at Marin, began to take an interest in the matter and made some excavations on the site of the supposed lake-dwelling. One reason for this neglect was the current opinion that the whole area had already been so thoroughly rummaged that no satisfactory results could be expected from further investigations. M. Vouga, however, started digging at some distance from the space previously turned over, and soon had the good fortune to come on a stratum rich in archæological remains.

The success of M. Vouga induced M. Borel, on behalf of the Museum of Neuchâtel, to undertake explorations on a more extensive scale, but his labours were not crowned with commensurate results. Finally, in 1884, the Historical Society, having secured from the Cantonal Government the exclusive right of conducting excavations at La Tène, began fresh operations under the

¹ Second and Sixth Reports on the *Pfahlbauten*, 1858 and 1866.

² Die Pfahlbauten des Neuenburger Sees, 1866.

management of MM. Vouga and Wavre, the chief result of which was the discovery of a gold torque and some gold coins. The coins were considered exceptionally valuable inasmuch as they were found *in situ*, and not, as most of those previously recorded, among the shifting gravel.

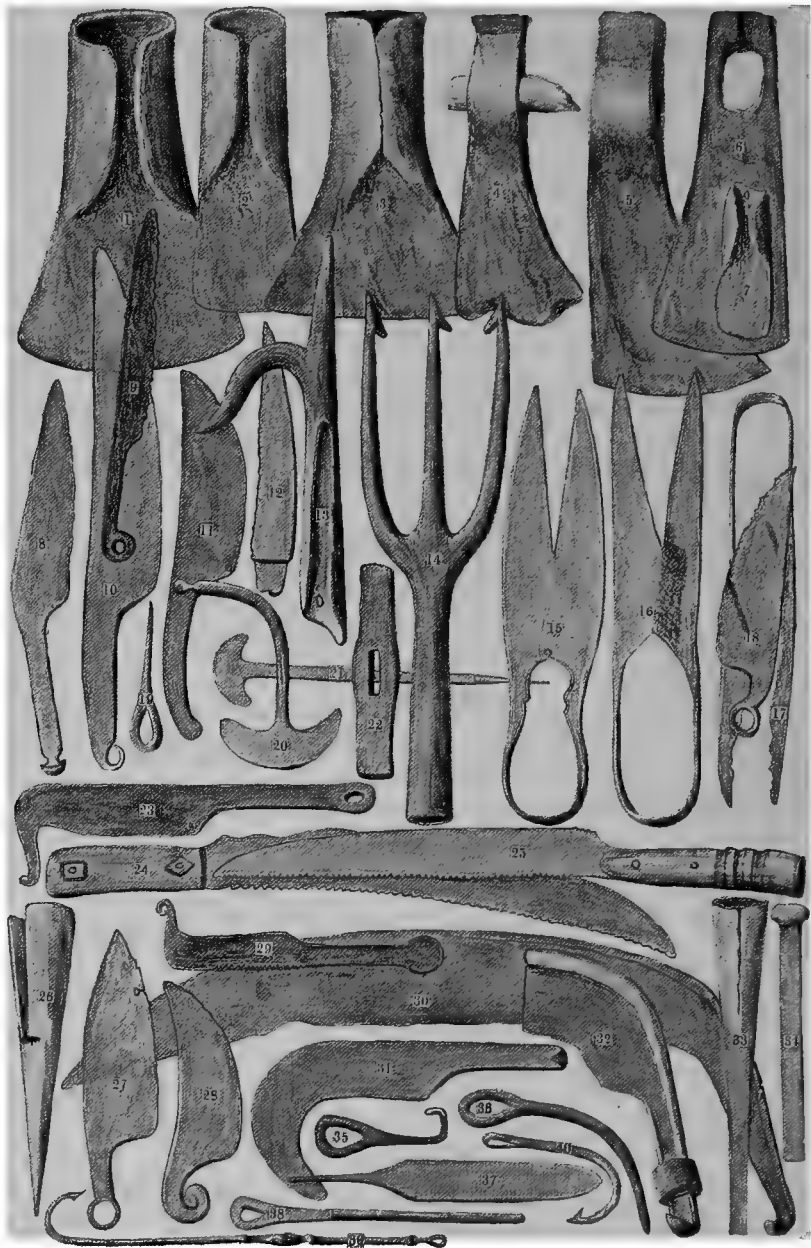
The relics collected during these various explorations have been widely scattered. Typical collections may, however, be seen in the Museums of Bienne, Neuchâtel, and Berne. A few, including a sword-sheath (Fig. 155) ornamented with a running scroll of dragon-like heads, as well as some portions of shields (Plate XXXIX., Nos. 1-5), and other interesting objects, have been secured for the Museum of Geneva. The largest of the private collections, in addition to those of Colonel Schwab and Professor Desor, are those of M. Vouga of Marin, M. Dardel-Thorens of St Blaise, and Dr Gross of Neuveville. Besides the works of Keller and Desor, already mentioned, two well-illustrated monographs on La Tène have been published, one by E. Vouga¹ and the other² by Dr Gross. English readers have had an opportunity, through the translation of Dr Keller's reports by Mr Lee (2nd ed., 1878), and my own more recent Rhind Lectures on the "Lake-Dwellings of Europe" (1890), of becoming fairly well acquainted with the number, character, and importance of the antiquities found on this unique station.

In face of the facts disclosed by these later researches,

¹ Les Helvètes à la Tène, 1885.

² La Tène un Oppidum Helvète, 1886.

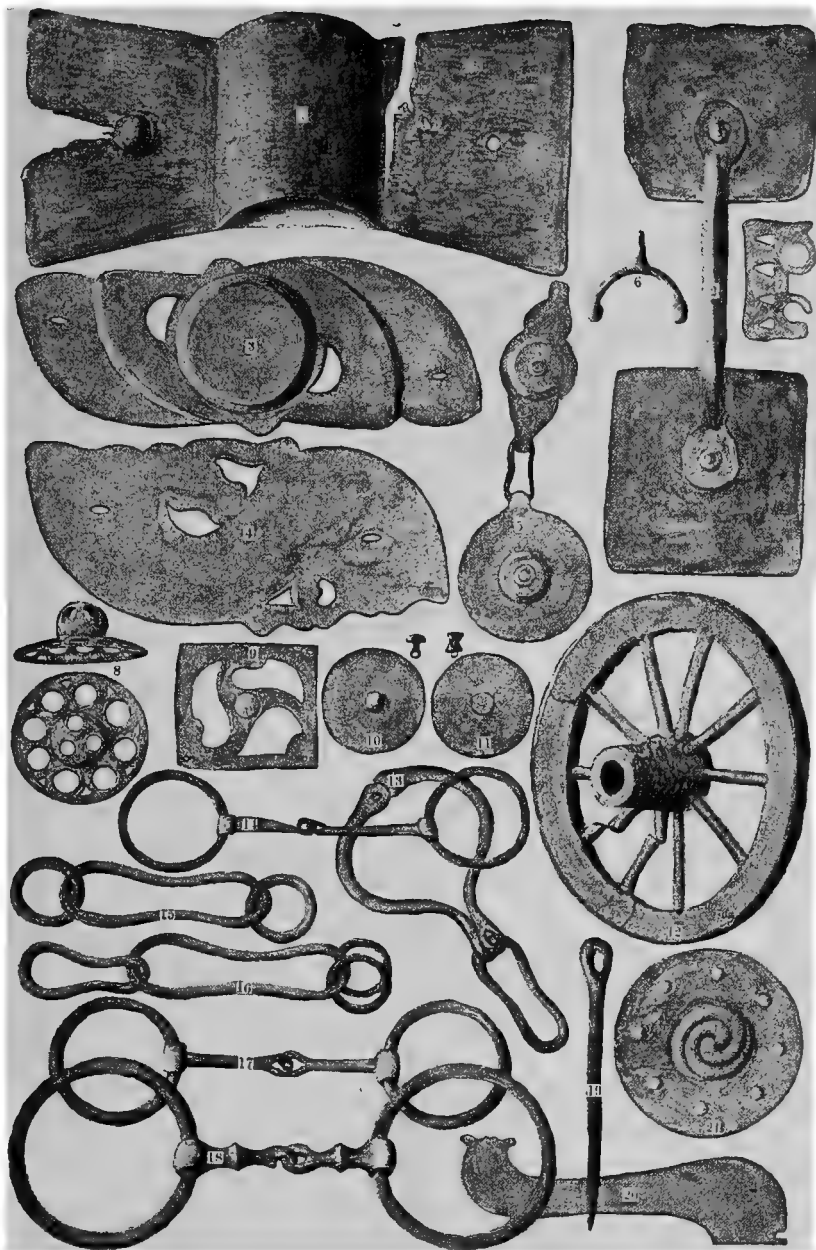
more especially those of M. Vouga, it can no longer be maintained that La Tène was a pile-structure analogous to the *Pfahlbauten* of the Stone and Bronze Ages. As a place of habitation it consisted of a series of rectangular wooden buildings erected on both margins of an ancient outlet of the lake, and connected by a wooden bridge, the piles of which have been traced for a considerable distance. The submergence of the locality, such as it was when its archæological treasures first attracted attention, was due to a gradual accumulation of mud and peat along the bed of the sluggish channel which carried, and still carries, its surplus waters to the Lake of Bienné. The geographical position of the site, commanding the great highway between Constance and Geneva, and the vast preponderance of weapons of war among the relics found on it, point to its having been a military station or outlook. Nor is there evidence wanting to suggest that its end was a tragic catastrophe. The quantity of human bones, representing some thirty or forty individuals, and including some skulls said to have had sword-cut gashes on their top; the number of abandoned swords, about the half of them being still unsheathed; the incongruous medley of relics found by M. Vouga at the bottom of the ancient river-bed, comprising swords, lances, axes, chains, razors, various wooden implements, fragments of a large vase, an entire wheel (Plate XXXIX., No. 12) and other parts of a waggon, together with the bones of horses and oxen,—all indicate that the *coup* was sudden and successful. The discovery of char-



(All $\frac{1}{2}$ real size.)

PLATE XXXVIII.

OBJECTS FROM LA TÈNE (see p. 425).



(Nos. 8= $\frac{1}{2}$; 20= $\frac{1}{8}$; 12= $\frac{1}{16}$; and the rest= $\frac{1}{4}$ real size.)

PLATE XXXIX.

OBJECTS FROM LA TÈNE (see p. 425).

acteristic Roman remains, such as coins, tiles, pottery, bricks (one with the mark of the 21st legion, "Rapax"), on and around the site of La Tène, leave little doubt that the captors of the "Oppidum" were the Romans.

On comparing the accompanying illustrations of a number of objects found on La Tène (Plates XXXVIII., XXXIX.) with those from Hallstatt (Plate XXXIV.), readers can readily distinguish some of the resemblances and differences between the art products of these two stations. Plate XXXVIII. represents a group of ordinary implements of domestic use—axes, knives, shears, saws, sickles, scythes, &c. Plate XXXIX. includes portions of shields, waggons, horse-trappings, &c. Plate XL. shows a selection of various objects found in other localities, belonging to different stages of the same civilisation, some earlier and some later than those of the Oppidum. Moreover, a few special objects are figured in the text, including a portion of the famous sword-sheath ornamented with three fantastic animals (Fig. 154), already noted as having been discovered by Professor Desor; also two sword-sheaths (Figs. 155, 156) ornamented with designs which may be paralleled, on the one hand with one from Hallstatt (Fig. 151), and on the other with those known in the British Isles as Late Celtic.¹

The La Tène culture, having its centre of dispersion considerably to the west of Hallstatt, spread far and wide on the Continent and to the British Isles. Its

¹ See Prehistoric Scotland, pp. 241-246.

characteristic remains have been discovered in graves, and on the sites of battle-fields, fortifications, &c., as may be seen from the following brief notices:—

In the course of making the highroad from Berne to the bridge of Tiefenau, in 1849-1850, the workmen came

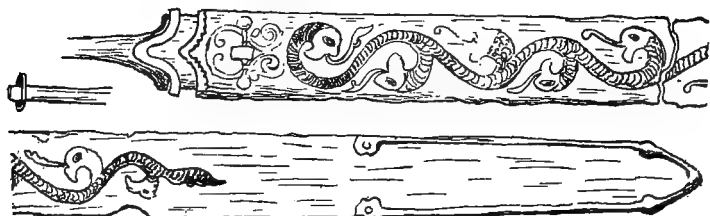


Fig. 155.—IRON SWORD-SHEATH, LA TÈNE (4).

upon a large quantity of weapons and implements of iron and other relics which, though much decayed, could still be identified as La Tène types. Among the objects collected, or identified, were remains of chariots

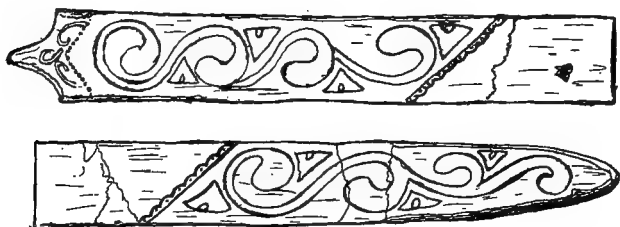


Fig. 156.—IRON SWORD-SHEATH, LA TÈNE (4).

and coats of mail, bones of horses, bridle-bits, pottery, glass beads, sickles, knives, hatchets, &c., and some thirty pieces of money (*massaliotes et celtiques*). These remains lay some three feet below the surface, huddled together without any order or appearance of burial,

from which Baron de Bonstetten inferred that they were the *debris* of a battle-field.¹

During the extensive excavations necessary for the "correction des eaux du Jura," some remarkable discoveries were made while deepening the bed of the Lower Thielle. Immediately below the village of Port the remains of a pile-structure were encountered, and above the same village the

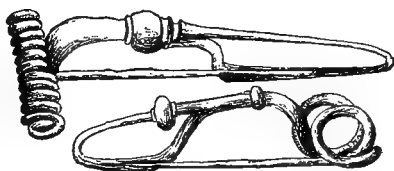


Fig. 157.—IRON FIBULÆ, LA TÈNE (½).

dredgers came in contact with a row of piles which Dr Von Fellenberg judged to have been the supports of a bridge. Near them were collected over 100 weapons — swords, spears, &c. — of La Tène types. Also a little below Brügg traces of two bridges were met with, one assigned to the Gallo-Roman period, and the other to a later date. In the vicinity of the former a large number of antiquities was collected, comprising relics of different civilisations—La Tène, Etruscan, and Roman. Among the La Tène objects, which consisted of the usual assortment of iron swords, spear-heads, axes, sickles, &c., were a sword-sheath of bronze, and an iron spear ornamented with two (Late Celtic) designs in incised lines, one on the right side of each surface when looked at from above (Plate XL., No. 7).

In France similar antiquities have been found on

¹ Sup. au Recueil d'Antiq. Suisses, 1860.

the Helvetico-Romano battle-fields, such as Alise St Reine (Alesia of Cæsar) and Mont Beuvray (Bibracte), as well as in graves, more especially in the valleys of the Marne and Aube. Some of these were in tumuli, probably of Gaulish chiefs, as they contained the remains of chariots and military equipments. Of such antiquities a few illustrations are given on Plate XL. No. 1 represents the famous bronze helmet known as the Casque de Berru, figured and described by M. Bertrand,¹ which is of special interest on account of the Gaulish designs with which it is ornamented. No. 2 is another helmet, ornamented with fretwork; and associated with it, in the same tomb, were a number of weapons, personal ornaments, the bronze mountings of horses' harness, and the remains of a chariot. A few of these relics are here illustrated after M. Fourdrignier²—viz., an iron spear-head (No. 8), a sword and its sheath, both of iron (No. 16), two bronze fibulæ (Nos. 10 and 11), a gold bracelet (No. 13), a bronze horse-bit (No. 12), and some mountings of a chariot and harness (Nos. 9, 14, and 15).

Baron de Baye has published³ a report of a series of graves excavated by him in the territory of Flavigny, Canton d'Avize (Marne), which yielded a number of objects characteristic of the period, comprising swords, spears, fibulæ, bracelets, girdles, torques, rings, the umbo of a shield, a jet bracelet, &c. The iron umbo

¹ Arch. Celtique et Gauloise, p. 356.

² Double Sépulture Gauloise de la Gorge-Meillet, 1878.

³ Revue Archéologique, 1877.

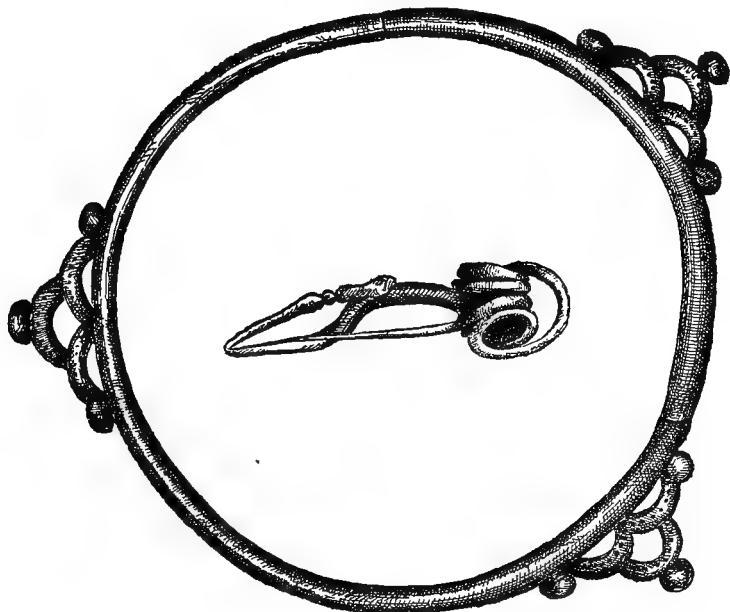


PLATE XL.

(Nos. 1, 7, 8, 12, and 16 = $\frac{1}{2}$; 2 = $\frac{1}{4}$; the rest = $\frac{1}{2}$ real size.)

OBJECTS OF LA TÈNE TYPES (see p. 428).

is precisely similar to one from the Oppidum La Tène (Plate XXXIX., No. 1). From de Baye's illustrations I reproduce three interesting relics of bronze—viz., a fibula, a torque, and a girdle. The fibula (Fig. 158), though made of bronze, is an early La Tène type. The torque (Fig. 159) has three ornaments, similar to



Figs. 158, 159.—BRONZE FIBULA AND TORQUE FROM GAULISH CEMETERY.

each other, projecting from its circumference at irregular distances. According to Baron de Baye this triple repetition of the same ornament is common to objects of Gaulish art. The girdle (Fig. 160) is composed of a series of rings alternating with elongated links of fine workmanship, and each link has in its middle a small

rectangular plaque containing a setting of red enamel with a white streak across it. At both ends and in



Fig. 160.—BRONZE GIRDLE FROM GAULISH CEMETERY (MARNE).
(Length 37 inches.)

the middle of the chain there is a circular setting of the same enamel, bearing on its surface the *triskele* with curved arms—a well-known symbol on Gallic coins.

Near the village of Stradonic, in Bohemia, there is a truncated eminence known under the name "Berg Hradischt," which, owing to the precipitous nature of its slopes, is only accessible on one side. That this natural stronghold had been repeatedly occupied as a safe camping-ground was proved by the large amount of human relics of all ages found in the accumulated *débris* on its summit.¹ Coins were also abundantly met with, especially gold pieces — some 200 of the latter having been found in one place. Others were of silver and *potin*. Some of the coins were imitations of those of Philip of Macedon; others bore impressions of the fantastic horse with the long tail and horn, so characteristic of Gaulish money; and others were of Roman origin. Of the relics, by far the largest number were La Tène types, among which may be noted fragments of glass bracelets (Plate XL., Nos. 3 and 4), pincers, torques, grotesque figures of animal heads, iron axes, bridle-bits, &c. There were also upwards of 100 dice-pieces of bone (Nos. 17 and 18). The fibulæ were of iron and of bronze, the former being, however, more abundant. I have placed side by side two bronze fibulæ precisely alike, except in dimensions, one (No. 5) being from La Tène and the other (No. 6) from Hradischt.

As already mentioned, the intrusion of the Gauls into North Italy prior to its conquest by the Romans has been abundantly confirmed by archæological evidence. In the later cemeteries of Etruscan Bologna

¹ Mitt. der Anthrop. Gesel. Wien, vol. x.

(Benacci, Certosa, &c.), Marzabotto, Este, &c., as well as in a large number throughout the valley of the Po, Gallic antiquities have been discovered and identified as such by the most competent authorities. During excavations at Benacci¹ three series of graves were found at different depths, the contents of which clearly showed that they belonged to different races. The uppermost were burials of the Roman period. Underneath them was a group of twelve graves in which the characteristic La Tène swords and fibulæ were found. Beneath these was a third group, which, in structure and contents, corresponded with the graves of Etruscans and Celto-Umbrians.

In 1878 Professor Castelfranco investigated a cemetery at Soldo, in the Brianza district, in which, among other relics, were the following: a bronze fibula, an iron knife and pair of shears, a Celtic silver coin, and a vase. The last had the word VITILIOS scratched on it, in rude *graffiti*, which Fabretti ascribes to a Celtic source.²

More recently the same author has described several groups of tombs throughout Lombardy, especially on the left side of the Po, in which were swords, spears, knives, fibulæ, saws, shears of iron—all undoubtedly of Gaulish origin.³

The extension of both the Hallstatt and La Tène civilisations into Bosnia-Herzegovina, as already de-

¹ Zannoni, *op. cit.*; Brizio—Tombe et Necropoli galliche, 1887.

² Bullet. di Palet. Ital., 1879.

³ Ibid., 1886, with Plates VIII.-XIII.

scribed in these pages, is very remarkable when we consider that these regions lie out of the way of the old trade routes either by the Adriatic or Danube. The problem of their *raison d'être* is, however, still a subject of discussion among archæologists.

According to Professor Worsaae, La Tène culture scarcely affected Denmark before the Christian era, and it was later still before it touched the shores of Norway and Sweden. On this question he makes the following remarks :—

Recent finds in Denmark have demonstrated more and more clearly that this culture-wave [La Tène] is the first which bore a complete fully-developed Iron Age to the North. Hitherto the finds have been most numerous in the peninsula of Jutland and the island of Bornholm. They are discovered partly in grave-mounds and so-called "fire-spots" (caldron-shaped hollows in the earth filled with coal and ashes), mingled with burnt human bones, the buried articles frequently being bent and spoiled; and partly in bogs, after the ancient fashion.

From Jutland we have several iron swords in iron sheaths; spears and knives have also been found there. The ornaments met with consist chiefly of the characteristic brooches marked with crosses, and sometimes with the triskele, belt-clasps, and larger belts. As usual, the smaller objects are found in the graves, the larger in bogs and fields. Large bronze rings, with heavy projecting knobs, are peculiar to the latter deposits. They have probably served as votive offerings, and are, therefore, generally decorated with sacred signs. On the rings is seen the S sign, or sun-snake, and on the knobs the triskele, which latter sign is also repeated in embossed work. The knobs on another ring (Fig. 161) are ornamented in a similar manner, with the addition, on the back of the upper knob, of the sign of the Trinity, three dots placed triangularly. The ring is, besides, marked with the triskele and with double half-moons. The

upper part of a large sacrificial vessel, with massive handles of bronze or brass, was taken from a bog in Fünen (Figs. 162, 163). Both externally and internally it is ornamented with figures having a mythological signification. Even if the vessel itself was made abroad, or at least by foreign workmen, it was certainly used in Denmark in the worship of the gods, as the figures in question are equally appropriate for the divinities then adored in Denmark. On the outside the large head adorned

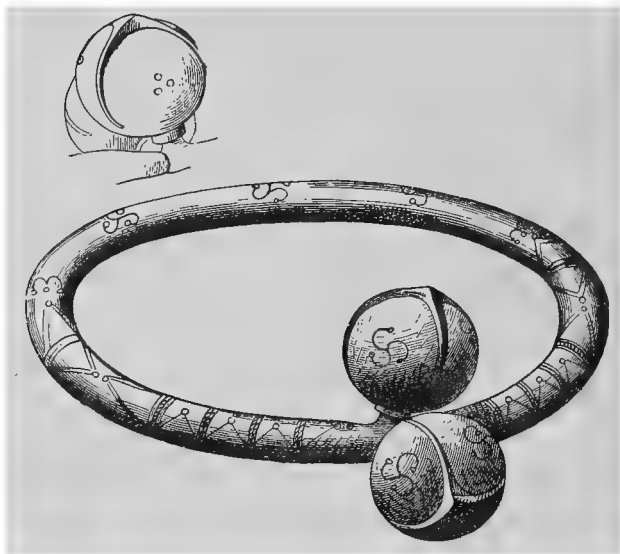


Fig. 161.—BRONZE RING, DENMARK ($\frac{1}{2}$).

with a thick neck-ring joined by knobs and surrounded with bulls, would not fail to recall to the mind of the people the great god of thunder, Thor, to whom bulls were especially consecrated. Several nations believed that in the thunder they heard the bellowing of a furious heavenly bull; and the thunderbolts, which were presumed to fall during the tempest, were taken for teeth which the bull spat out in its fury. The pig or boar, and wolf, which, on the inside, stand on either side of the triskele

in the dotted ring (the sun), would involuntarily call to mind the hog of Frey and one of Odin's wolves. For it is quite indisputable that Thor, Frey, and Odin, who, towards the end of heathenism, were the chief divinities of the North, had already



Fig. 162.—PORTION BRONZE VESSEL WITH RING HANDLES, DENMARK (†).

occupied that position for several centuries. In the next place, accumulated observations indicate that the idea of a divine trinity, and other important doctrines of the northern mythology, must have been extensively diffused not only during the

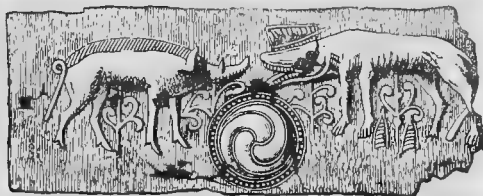


Fig. 163.—PORTION OF BRONZE VESSEL SHOWING TRISKELE, BOAR, AND WOLF (†).

whole of the Iron Age, but undoubtedly even in the preceding Bronze Age. During that period, at least so far as we can judge, the North was inhabited by a branch of the great Gotho-Germanic race, which at a remote time, like the other Aryan peoples, had brought from Asia the common foundation of

their religious belief. It was in the details only that these doctrines, by degrees, became differently developed in different countries."¹

In 1891 one of the most interesting archæological discoveries of modern times was made in a Danish peat-bog, at a place called Gundestrup, in North Jutland. This was a great silver vase or bowl, the upper half of which was constructed of a series of rectangular panels ornamented in embossed work with figure-groups, evidently illustrating scenes in human life of high importance. When found, the panels were detached and laid carefully one above the other inside the lower portion of the vase, which was formed of one piece in the shape of a shallow round-bottomed cup, and which, at first sight, looked like a separate vessel. There were twelve panels in all, divisible into two groups of seven and five. These plates, in both sets, measured about 8 inches in height, but laterally those of the former extended to $9\frac{1}{2}$ inches and those of the latter to 16 inches. When fitted along the upper margin of the cup the five larger plates just exactly covered its inner circumference; but, in adjusting the smaller ones to its outer side, it was seen that one was wanting. In addition to these twelve rectangular plates there was one round plaque, nearly 10 inches in diameter (also ornamented in the same style of *repoussé* work), which, it was conjectured, formed an inner bottom to the vase. The restored vessel, measuring 27 inches in diameter and about 17 inches in depth, is now one of

¹ The Industrial Arts of Denmark, London, 1882, pp. 127-131.

the most valuable treasures in the Museum of Northern Antiquities.

A description of the Gundestrup bowl has been published by Dr Sophus Müller,¹ with beautiful phototype illustrations of all the plates. Another account of it, by Professor Iapetus Steenstrup, appeared in the *Memoirs of the Royal Danish Society of Science* for 1895, which is also well illustrated. From the latter I have reproduced the two accompanying illustrations, which will help readers to form a correct idea of this remarkable relic, and of the evidence it supplies of the influence of Gaulish civilisation in the north of Europe, even when blended with Roman art. One (Fig. 164) is a general view of the restored bowl. In front we see two naked busts, representing a god with uplifted clenched hands, and a goddess. It has been suggested that the former is the patron of physical exercise—a view which finds support in the associated figures of an athlete and a cavalier. The god wears a beard, and his neck is adorned with a Gaulish torque. The goddess is attended by two maidens, both well attired, one arranging her hair and the other in a sitting attitude. The uplifted right hand of the goddess holds a bird, and the left lies across the breast supporting a human figure, while near the right breast there is a small quadruped. A lion and two conventional birds fill in the corner spaces of the plate. The five other plates, which, along with the missing one, would complete the outer circumference of the bowl, are similarly adorned, each

¹ *Nordiske Fortidsminder*, Part II.

showing a naked bust, either of a god or goddess, around which are miniature human figures, fantastic animals, &c.

The second illustration (Fig. 165) represents one of the larger plates which line the inner surface of the bowl. It is occupied chiefly with two processions—one

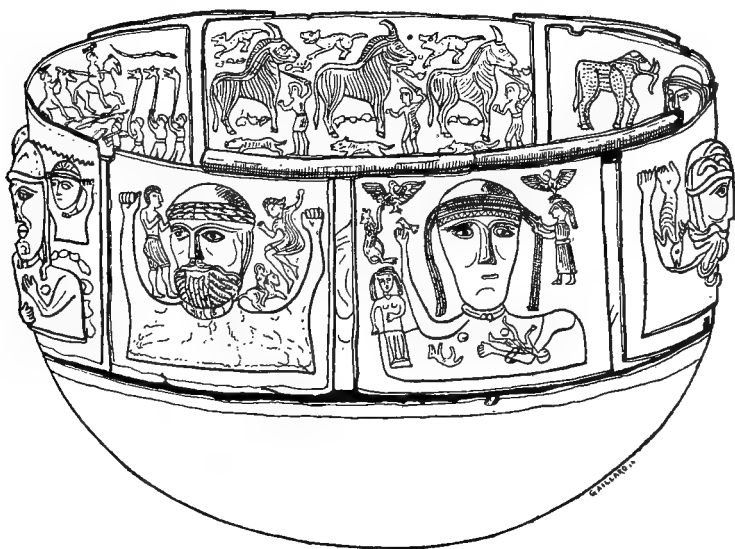


Fig. 164.—VIEW OF GUNDESTRUP SILVER VASE. (Diameter 27 inches.)

of cavaliers, with helmets of distinct Gaulish types; and the other of infantry, each soldier armed with a long spear and an oblong shield. Behind the infantry there is an officer, who appears to be in command, carrying a sword in his right hand and wearing a helmet surmounted with a boar similar to that of one of the cavaliers; after which come three trumpeters blowing

their instruments. The trumpets are large jointed metal tubes, having an upward curve and terminating in the gaping mouth of an animal. To the left is a colossal figure holding a man inverted over a large basin. The whole scene is very suggestive of human sacrifice, with its attendant pomp and ceremony.

The other plates are filled in with figures of men and a variety of animals—elephants, griffins, the ram-headed

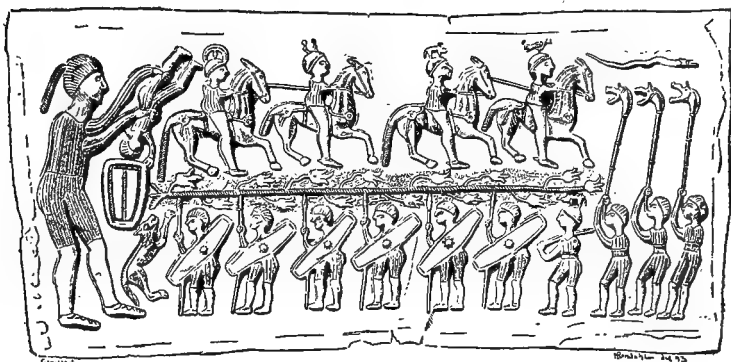


Fig. 165.—ONE OF THE INSIDE PLATES OF THE GUNDESTRUP VASE.
(Length 16 inches.)

serpent, the boar, a man astride a dolphin, stags, dogs, and a number of nondescript quadrupeds. The round panel represents a bull just slaughtered, a scene which may have some relation to another on one of the inner panels representing a bull with a man about to plunge a sword into its body. On one of the plaques there is represented a seated male figure wearing a cap surmounted by the antlers of a stag. He is holding up in the right hand a massive ring, clearly showing the two

bulbs and twisted body of a torque, precisely similar to that on the neck of the "Dying Gladiator" in the Capitol Museum at Rome: the left hand is grasping a ram-headed snake by the neck. It may be of interest to observe that all the busts of the divinities, male and female, are naked; and that each has round the neck a Gaulish torque ending in front in two expanded bulbs. The gods have their uplifted hands firmly clenched, and generally grasping some animal. The goddesses have the hair plaited in two bands, one falling on each side of the head, the arms (except in one instance where one hand is raised) lying across the breast and the hands open. The ordinary men and women are all clothed, but only one, a female servant, wears a neck-ring.

After a critical analysis of these various figure-groups, Dr Müller comes to the conclusion that the Gundestrup vase is a production of the first century of our era, probably made in Denmark. Dr Voss of Berlin has written a long essay in support of the hypothesis that it is a monument of the worship of Mithras, illustrating the sacrifice of a bull, and possibly also of a man, to that divinity.¹ There can be little doubt that this magnificent bowl, or sacrificial vase, with its divinities, processions of warriors, and designs of oriental animals, griffins, &c., is a striking embodiment of Gallic mythology, the study of which, however, cannot be here pursued. As to its workmanship and style of art, it is

¹ Die grosse Silberkessel von Gundestrup in Jütland, ein mithräisches Denkmal in Norden. Berlin, 1896.

equally evident that they have emanated from Gaulish civilisation—a remark which applies also to the bronze caldron from Fünen (Figs. 162 and 163). Probably the artists who moulded the heads of the divinities on these remains had seen some stray specimens of Roman statuary. But excluding the oriental influence disclosed by the forms of some of the animals, the symbol of the boar, the *triquetra* (Fig. 163), torques, crested helmets, and oblong shields must be classified as an assemblage of the most characteristic elements of late Celtic art hitherto found, either in Gaul or within the British Isles.

General Remarks.

From a cursory inspection of the archæological remains of Hallstatt and La Tène, we see that during the interval between the two periods the use of iron had come largely to the front, while that of bronze had correspondingly fallen back. In Hallstatt only the sword-blade was made of iron, the sheath being still made of bronze; while in La Tène both blade and sheath were made of iron—there being, I believe, only one bronze sheath in the whole collection. Of 4352 metal objects collected on the former station 598 were of iron; on the other hand, in the latter not only the swords, spears, lances, &c., but even the fibulæ (Fig. 157) and pins, were made of iron. Of 4979 metal objects found in the cemetery of S. Lucia, as recorded by Dr Marchesetti, 327 were of iron; but of these only

about a dozen came under the category of arms, one being a doubled-up sword of La Tène type. These facts clearly suggest that the ascendancy of iron progressed slowly but peacefully, in its movement to Western Europe, till it reached transalpine lands, when it supplied the Celtic races with the means of gratifying their warlike and aggressive propensities.

We thus see that the Hallstatt civilisation not only discloses a well-defined evolutionary stage in the iron industry, but also links together its special metallurgical products with the prevailing forms of the later Bronze Age. On the other hand, in La Tène the latter entirely disappear. The small bronze dagger, the pioneer weapon of the Bronze Age in Western Europe, is no longer met with. The leaf-shaped bronze sword, with its flat tongue and rivet-holes, gives place to a tanged iron blade, generally with parallel edges and a blunt point. Even the great iron sword of Hallstatt has apparently disappeared. Shields and helmets of iron become now parts of the military costume. The superabundance of personal ornaments in the form of iron fibulæ, beads and bracelets of glass, &c., show that amber and bronze had then become less necessary. In decorative art geometrical designs gave way to various symmetrical combinations of curves, spirals, involutes, and figures of fantastic animals. But the greatest innovation of all was the appearance of the new metal—silver, as well as Gaulish coins imitating those of Greek origin. The civilisation of La Tène,

although it contains the essential art elements of Hallstatt, is not a mere evolutionary phase of it, but rather a graft indicating a considerable amount of new materials producing results in new directions and of a novel character.

The industrial and art products of the two phases of the early Iron Age civilisation in Europe are somewhat more pronounced in France and Belgium than in Britain, probably because the former were geographically nearer their eastern prototypes. Since the influence of Hallstatt first reached French soil there is no reason to suppose that the new developments which it engendered suffered any break in continuity till the advent of the Romans. Many of the tumuli, especially in the Marne district, showing burials of chiefs clad in full armour and laid alongside of their horses and chariots, must be placed much earlier than the date of the Oppidum La Tène; and it is, probably, to an extension of this custom to Britain that the analogous interments in Yorkshire must be assigned. We have just seen, from the passage quoted from Worsaae, that it was during the La Tène civilisation that the iron industry first reached Denmark, so that the Hallstatt period was but feebly represented in Scandinavian lands. This is quite in keeping with the opinion that the bronze industry reached their shores by way of the lower Danube, Hungary, and the southern coast of the Baltic—a route little affected by the Hallstatt civilisation. The same remarks apply to out-of-the-way and secluded districts, as, for example, the lake-dwellings

in Western Switzerland, many of which were in the full Bronze Age till their termination in the La Tène period.¹ Thus while the Bronze Age was still flourishing in the north of Europe, another culture-current—emanating from the Ægean islands and the mainland of Greece, long after the Mycenaean culture had passed its zenith—spread into Central Europe by way of the Adriatic, and ultimately extended as far as the British Isles. Scandinavia and the British Isles were thus the termini of two distinct commercial currents, which reached them by different paths—a fact which satisfactorily accounts for the marked differences between the Bronze Age antiquities of the two countries. It would appear that, along the middle regions of the Danube these two currents occasionally came in contact, as at Gemeinlebarn in Lower Austria, where—associated with a cemetery of the Bronze Age—there were some tumuli of the Hallstatt period remarkably rich in coloured vases decorated both with geometric and figure ornaments.²

That the influence of the Hallstatt wave had not entirely spent itself short of our shores is amply proved by the existence, in the museums of Britain and Ireland, of a number of objects whose origin can be clearly traced to common types in Central Europe. It was succeeded by that of La Tène, probably at no long interval of time, and the two became amalgamated. These continental culture and art elements were, however, so

¹ See *Lake-Dwellings of Europe*, p. 542 *et seq.*

² *Mitt. der Prähist. Commission*, Band I., No. 2, 1890.

handled by the “barbarians in the ocean” as to produce within the British Isles a new school of art, known as “Late Celtic,” whose products can be readily differentiated from those of all other contemporary phases of European civilisation.¹

¹ For the continuation of this subject, as it affected the British Isles, see ‘Prehistoric Scotland and its Place in European Civilisation,’ chap. vii.

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